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ABSTRACT

With demand for social welfare and rehabilitation services growing faster than the manpower supplying the services, agencies are finding it necessary to increase recruitment of new workers and to utilize available workers more efficiently. The papers in this publication were prepared as background information, initial working papers, and beginning work plans for the first research steps in a 5-year program of research in the areas of: (1) job mobility, (2) employment of subprofessionals, and (3) impact of organizational climate and structure on workers. These working papers summarize the state of the art, introduce the research approach, and identify some expected outcomes. (BH)

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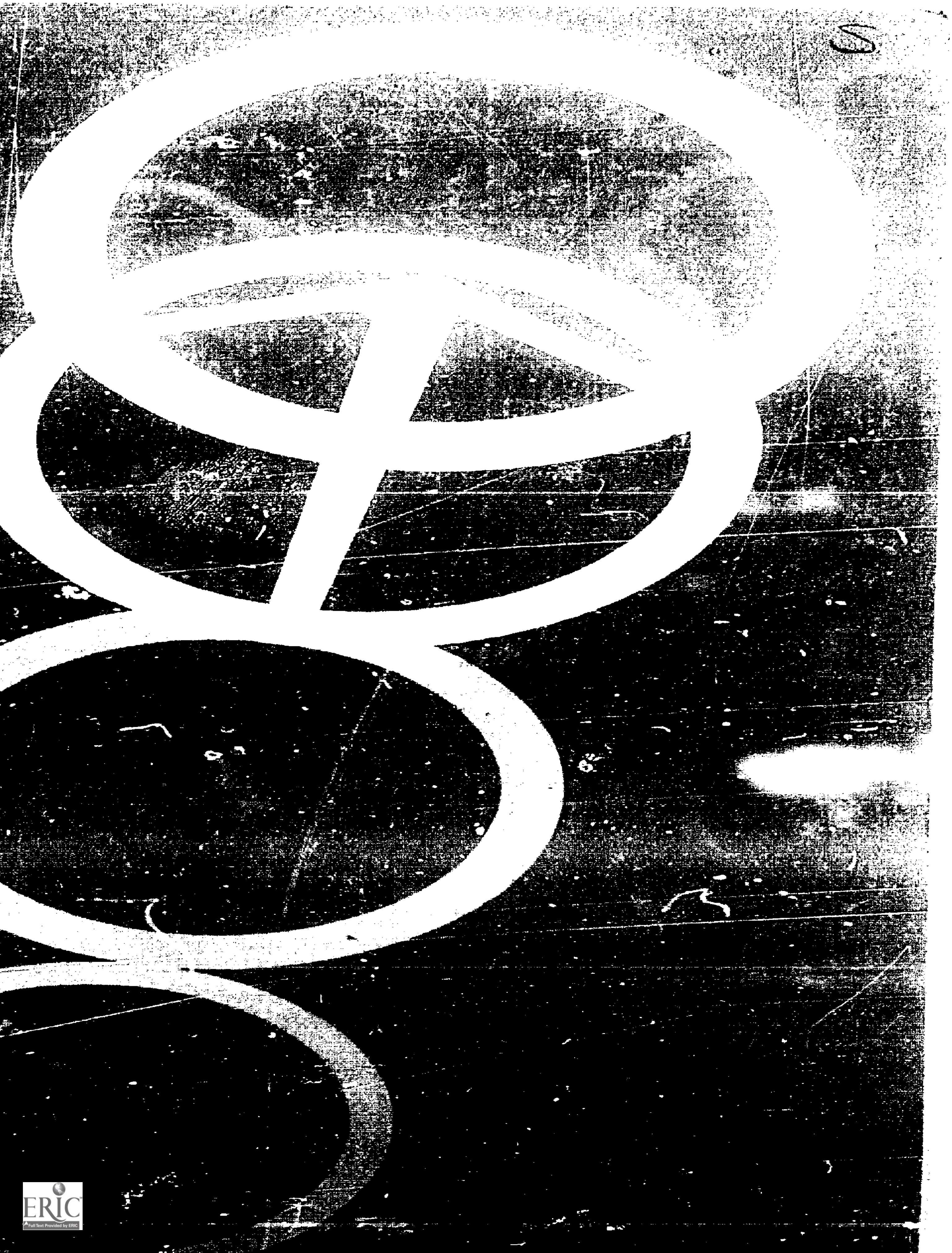

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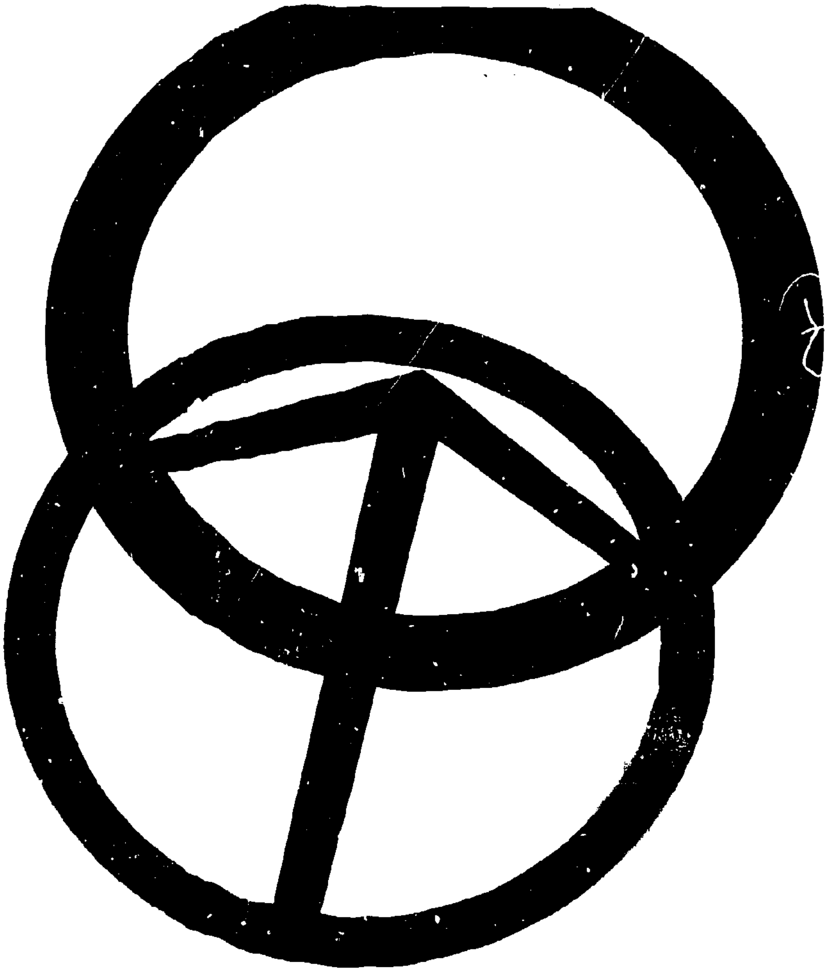

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FOREWORD

Most public and private social welfare and rehabilitation agencies in the United States today face a basic dilemma: demand for service is growing faster than the supply of manpower needed to supply service. Agencies therefore are finding it imperative to stretch the available supply of workers by using them more effectively and to hire and train new workers from many sources. But almost invariably they find that they lack the knowledge essential to successful accomplishment of these imperatives.

It is for this reason that the Social and Rehabilitation Service has undertaken a five-year program of research on workers in this field, the work they do, and the settings in which the work is performed: the National Study of Social Welfare and Rehabilitation Workers, Work, and Organizational Contexts. The integrated program is expected to yield more new knowledge for the resources invested than would a large number of independent projects.

Knowledge generated by the study will be made available to policy makers, administrators, service delivery workers, and other personnel of public and private agencies and to teachers and students in the field through a series of publications, of which this is the first. The overriding purpose of the series, as of the study itself, is utility. Its usefulness can be enhanced by comments and suggestions from readers, which may be addressed to the National Study director.

The papers in this publication were prepared as background information, initial working papers, and beginning work plans for the first research steps in three areas of special interest: worker job mobility, employment of subprofessionals; and impact of organizational climate and structure on workers. These working documents summarize present state-of-knowledge, give an introduction to the research approach, and identify some expected study results and publications.

The opinions expressed herein are those of the authors and in no way reflect an official position of the Social and Rehabilitation Service.

Richard M. Longmire

Richard M. Longmire
Associate Administrator for
Planning, Research, and Training
Social and Rehabilitation Service

Washington, D.C.
April 1971

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Social and Rehabilitation Service -

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A SYSTEMS APPROACH TO MANPOWER UTILIZATION 15

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THE NATIONAL STUDY OF SOCIAL WELFARE AND REHABILITATION WORKERS, WORK, AND ORGANIZATIONAL CONTEXTS

A SUMMARY

Jean Szaloczi Fine*

The Social and Rehabilitation Service (SRS) has undertaken a program of research to develop much-needed new knowledge about social welfare and rehabilitation workers, the work they do, and the organizational contexts in which that work is performed. The present publication is one of a series resulting from the program of research. This introduction is intended to give the reader a brief orientation to the program plan, why the research was undertaken, what is being attempted, and what kinds of publications and other outputs are expected to result.

This program of research—the National Study of Social Welfare and Rehabilitation Workers, Work, and Organizational Contexts--is a set of projects, studies, and other research activities performed in part by SRS staff and in part by social scientists of various disciplines in universities, research institutes, and other nonfederal settings, with SRS direction and funding. It differs from previous research in that (1) it approaches the field as an "industry" and as a "national" service system, (2) it is an attempt to look for important interrelationships among a large variety of critical attributes of workers, work, and work settings, and (3) it combines a sample survey methodology with intensive investigations so that a depth of understanding can be combined with national estimates.

In a very real sense the research program may be said to have "begun" with the work of the task force on manpower whose report was published in 1965 by the Department of Health, Education, and Welfare under the title *Closing the Gap in Social Work Manpower*. Certainly much study, analysis, and planning had preceded the letting of the first contract in this program in 1968. The program is expected to continue through 1973, but some analysis and many research utilization activities should continue beyond that time.**

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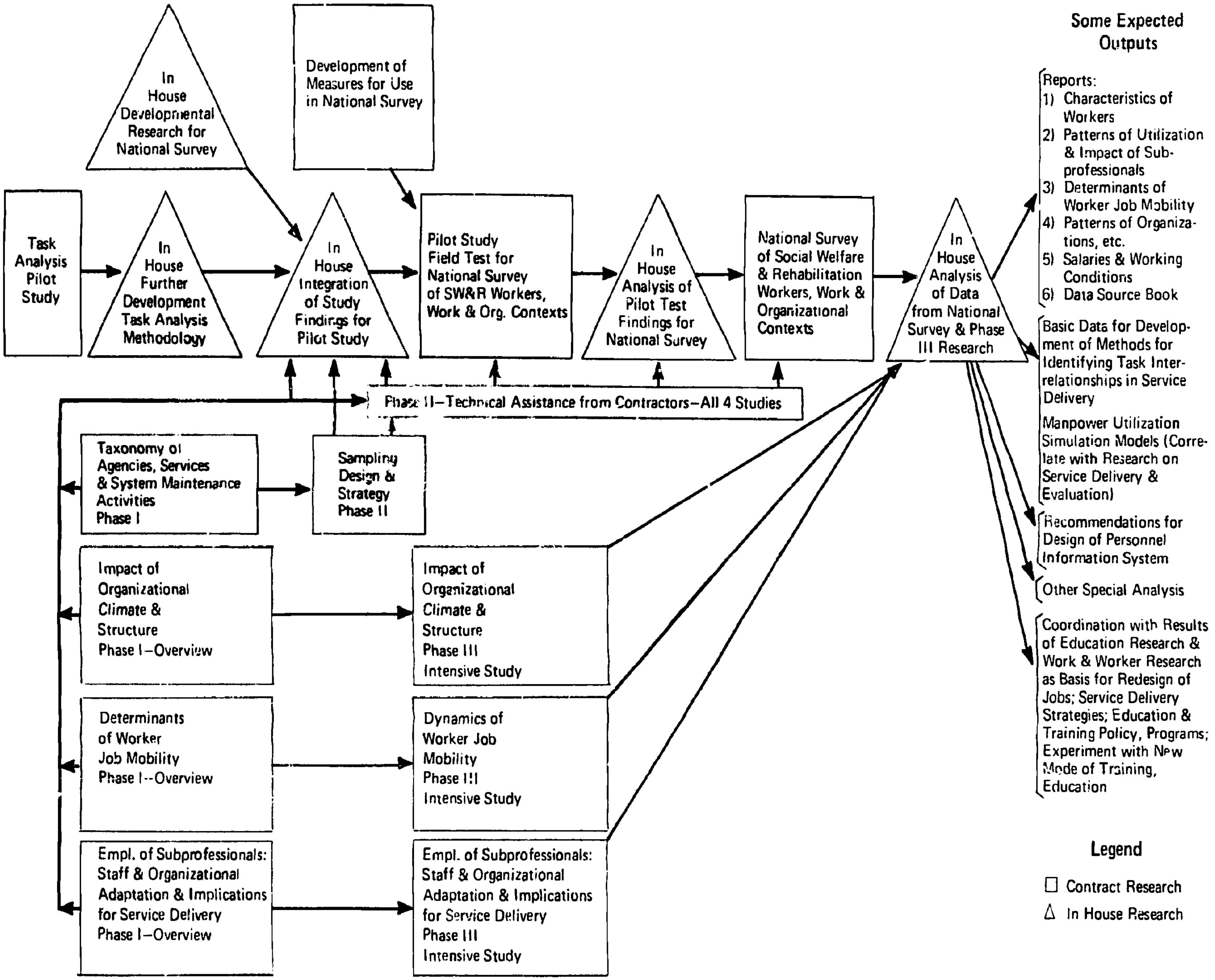
*Mrs. Fine is Chief, Manpower Research Branch, Office of Research and Demonstrations, Social and Rehabilitation Service, U.S. Department of Health, Education, and Welfare. She designed and is directing the National Study.

**The general outlines of the program and the interrelation of studies are indicated in the diagram.

NATIONAL STUDY OF SOCIAL WELFARE & REHABILITATION WORKERS, WORK, & ORGANIZATIONAL CONTEXTS


Task Analysis Pilot Study
In House Further Development Task Analysis Methodology
In House Developmental Research for National Survey
Development of Measures for Use in National Survey
In House Integration of Study Findings for Pilot Study
Pilot Study Field Test for National Survey of SW&R Workers, Work & Org. Contexts
In House Analysis of Pilot Test Findings for National Survey
National Survey of Social Welfare & Rehabilitation Workers, Work & Organizational Contexts
In House Analysis of Data from National Survey & Phase III Research
Phase II—Technical Assistance from Contractors—All 4 Studies
Taxonomy of Agencies, Services & System Maintenance Activities Phase I
Sampling Design & Strategy Phase II
Impact of Organizational Climate & Structure Phase I—Overview
Impact of Organizational Climate & Structure Phase III Intensive Study
Determinants of Worker Job Mobility Phase I—Overview
Dynamics of Worker Job Mobility Phase III Intensive Study
Empl. of Subprofessionals: Staff & Organizational Adaptation & Implications for Service Delivery Phase I—Overview
Empl. of Subprofessionals: Staff & Organizational Adaptation & Implications for Service Delivery Phase III Intensive Study
Some Expected Outputs
Reports:
1) Characteristics of Workers
2) Patterns of Utilization & Impact of Subprofessionals
3) Determinants of Worker Job Mobility
4) Patterns of Organizations, etc.
5) Salaries & Working Conditions
6) Data Source Book
Basic Data for Development of Methods for Identifying Task Interrelationships in Service Delivery
Manpower Utilization Simulation Models (Correlate with Research on Service Delivery & Evaluation)
Recommendations for Design of Personnel Information System
Other Special Analysis
Coordination with Results of Education Research & Work & Worker Research as Basis for Redesign of Jobs; Service Delivery Strategies; Education & Training Policy, Programs; Experiment with New Mode of Training, Education
Legend
☐ Contract Research
△ In House Research

THIS IS APPLIED RESEARCH

The National Study of Social Welfare and Rehabilitation Workers, Work, and Organizational Contexts is a program of applied research intended for use by agency managers and workers as well as teachers and students. Central to the research strategy and publication plans is the overriding image of useful applied research as "pushing the state-of-the-art" in social science theory and research methodology to obtain dependable new knowledge for practical, viable, and effective solutions to day-by-day problems in practice, management, and policy making. That is, the skill of the social scientist is challenged to provide new knowledge that the manager, the worker, or the student can use to understand better the phenomena he observes in everyday life. The ultimate test of the effectiveness of applied research is the degree to which it enables the manager or worker to recognize correlates in his own experiences and to use information and knowledge from the research to better manage his own work in order to fulfill more of its purposes. The "usefulness" criterion has dominated research planning at all stages. Needless to say, no research is useful unless results are communicated and, furthermore, communicated in a form that is understandable to different potential users with different needs, who bring different experiences and understanding to the interchange with the researcher. Therefore, a decision was made to publish a series of publications focusing on different aspects of the research and performing different communication tasks in an effort to build a bridge between the research and use of it by managers, workers, scholars, and students in a variety of settings.*

It is reasonable and proper for the SRS to be concerned about the state of knowledge about social welfare and rehabilitation workers because workers are the means—the vehicles—for the delivery of services. That is, workers embody the total technology of the field; they are both concepts in operation and instruments of action. This is in contrast, for example, to goods-producing industries in which the workers design, fabricate, and operate the machines or other instruments which are the essential tools for doing the work. In goods industries the separate roles of worker and tool are relatively clear, whether the tool is as simple as a hoe, a needle, or a hammer or is an enormous machine complex. In social welfare and rehabilitation, the worker as "knowledge in operation" and simultaneously as the tool that is manipulated to do the work requires a change in some of our images of work and workers that have been developed in earlier analysis of goods-producing work. The worker as a human being serving as a technological unit performing work in a service-producing system marches to a different drummer than does the worker who is part of a man-machine technological unit.

***If research reports, theoretical writings, and research utilization reports are useful to managers and workers in operating agencies, they should also be useful to students learning how to work in or manage such agencies, to teachers of such students, and to scholars involved in related study.**

In service delivery systems the effectiveness of services is constrained by the effectiveness of workers. The effectiveness of workers is constrained by their ability to find purpose and meaning in the work they do and to see their careers as vehicles for self-realization. Effective and efficient delivery of services depends upon the effectiveness and efficiency of the individual agency's solution to its manpower problems; that is, the effective management of human resources in each local agency to achieve an optimum integration of that agency's service goals and the work-related personal goals of individual workers. The circular interaction between workers, their work, and the work setting is clear. The central goal or purpose of this interaction is benefit to the recipient of services and the ultimate determinant of effectiveness of services is the design and management of the service delivery system.

Many problems of research management plague operating agencies, including problems in:

- obtaining adequate staff
- determining how many and what kinds of staff
- deciding how to utilize them effectively, as by
    - . . . clustering work tasks into jobs, work procedures, work groups and organizational subunits
    - . . . making work assignments, including the definition of prescribed tasks and of both allowable and required discretion in work
    - . . . determining workload
- maintaining "morale"; high motivation, responsibility, and creative use of discretion by all workers and managers are needed if the agency is to respond constructively and effectively to demands from its environment
- interpreting agency program and objectives and articulating subunit and individual purposes and needs
- managing change within agency; that is, managing growth, change, and development of the organization, the work group, and the individual worker, including:
    - . . . managing the "training overhead" implicit in all program change and innovation
    - . . . articulating multiple and conflicting objectives (management by whose objectives?)

- developing agency procedures and practices, including work flow, work routines and processes, control and monitoring, information feedback, etc.
- managing interaction among human and other resources and operating constraints.

PREMISES UNDERLYING THE PROGRAM

The SRS decision to undertake a comprehensive research approach to develop new knowledge for use in solving manpower problems is based on five major premises:

1. The achievement of SRS objectives ultimately depends on effectiveness and efficiency in local and State agency use of staff to deliver services.
2. The study of workers as human components of service systems requires research and management concepts that are more useful than those which are the basis for traditional paper-work management, management of goods-producing systems, and systems analysis based on economic theory.
3. Limited financial and scientific skill resources for research argue the favorable cost/benefit status of a research attack which would develop knowledge and data that would help a number of agencies.
4. A national study is needed because many problems seem to occur frequently and in many different agencies.
5. We have little clear knowledge of the correlate and antecedent factors in manpower problems; that is, how and under what conditions specific problems tend to occur and how they are interrelated with different characteristics of the workers, the work settings, and the work itself.

The lack of knowledge has caused widespread distress. Managers and workers at all levels complain of the lack of data and knowledge about the nature and magnitude of crucial relationships. Social welfare and rehabilitation work, because of its nature, requires a large amount of discretion in work performance by workers at all levels. Workers are both concept and tool in operation, and success in services is most often success in interpersonal tasks. Hence, work prescription, auxiliary tools, and procedures can never eliminate the discretion of the worker without eliminating the effectiveness of the services. This condition, combined with lack of knowledge and lack of data, results in a wide variety of complaints whose theme might be phrased "my technology is not under control." As a result, capacity for effective forward planning and efficient management of day-to-day work is seriously undermined. A sense of frustration is pervasive.

Helping local and State agencies is only one purpose behind this research. SRS and other national agencies (government and non-government) are concerned with many problems which can be solved only by considering interactions and interrelations between and among agencies; that is, they are concerned with problems which make it expedient to view the totality of social welfare and rehabilitation agencies as a system. These supra-agency problems are of concern not only to the national agencies but also to State and local organizations whose work includes overseeing or funding other agencies. Some of these problems are:

- allocation of resources between agencies, which requires knowledge not only of agency "outputs" but the relationship between "use of resources" (in this case, manpower) and "outputs."
- interactions between agencies in that the work of one profoundly affects what can, what must, and what may be done by another. Since workers are the vehicles for delivering services, the management of any one agency's human resources affects the functioning of the system as a whole.
- competition between agencies for the same human and financial resources. (This interaction makes it sensible and important to tackle such problems as the national adequacy of the social welfare and rehabilitation manpower pool.)
- interaction between service agencies and the educational institutions that educate and train manpower for social welfare and rehabilitation services. (Educational institutions have an interest in the totality of agencies as well as their interrelationships. SRS is concerned with helping educational institutions to be more effective—concerned directly because of its investment in education and training and indirectly because of interest in the adequacy of educational "output".)
- new knowledge potential of the whole network of agencies which can be viewed as a vast continuing experiment in which various apparently similar "inputs" and "processes" yield seemingly dissimilar "outputs" and different "inputs" and "processes" seem to have the same "outputs."
- the fact that SRS itself operates as an agency, and the agency problems outlined above occur here in an intensive form because our solutions to these problems spread throughout the country like waves from a stone tossed into the water. However, because of the centricity and influence of the Federal agency, the "waves" often increase in size and impact as they meet and merge with State and local problems in search of a solution.

THE NATIONAL STUDY RESEARCH STRATEGY

In summary, a research strategy was developed because the need is too great, the hour is too late, and the cost of research is too high to depend on unrelated and fractionated solitary projects. What is required is an integrated, planned, coordinated research program based on a creative working partnership between social scientists and program and policy staff for a totality greater than the sum of the parts.

Minimal new knowledge needed to be useful for manpower problems requires data about: (1) the workers themselves; (2) the work tasks they perform; and (3) the setting—organization and work group—in which they work.

These knowledge needs in the context of the present level of knowledge and state-of-the-art of research require the development of a multistage, multimethod, and multidiscipline research-development and knowledge-building strategy which takes into account:

- the dynamic nature of the phenomena under study
- the need to consider all levels of the system separately and in combination, since they operate separately and in interaction with others
- the necessity for multivariate and multidisciplinary methods to investigate the system meaningfully
- the need to develop more precise and sensitive observational and analytic techniques so that we can better "see" critical aspects of the phenomena under study

A strategy which builds knowledge requires a sequence of major research steps:

- a comprehensive overview of present social service knowledge and integration with knowledge of and issues in practice and management of the social welfare and rehabilitation programs
- refinement of research strategy and development of tactics for both "extensive" and "intensive" research
- development of required data-collection, observation, and analysis methodologies
- concurrent "extensive" and "intensive" investigations
- integration of results of general-purpose and special-issue analysis
- interpretation for use by managers, administrators, educators, and practice personnel
- coordination with other research streams and planning for next major research programs
- establishment of a formal mechanism for two-way communication about the technical issues and progress of the work, the perceived program information needs, and research utilization strategies

PROJECTS IN THE NATIONAL STUDY

At some point a broad research problem must be broken down, sometimes more or less arbitrarily, into manageable units of work usually called "projects" or "studies." Faced with (1) a complex set of knowledge needs, (2) considerable pressure both to obtain dependable results and to do so quickly, and (3) a dissatisfaction with knowledge and research techniques that are now readily available, the project staff evolved a strategy which would sequence and parallel projects so that:

- overview and developmental research projects could distill present knowledge and yield early but less complete and less certain results for immediate use in service programs and as a basis for empirical investigation in further research
- empirical investigation could proceed along two parallel lines to permit exploitation of both "extensive" and "intensive" research methodologies
- the national survey would be based on a probability sample and survey data-collection methodology for wide-scale "extensive" investigation of a limited set of variables related to several different phenomena
- an "intensive" investigation in depth of a larger number of factors and relationships would be related to specific issues and phenomena of particular concern and would provide an additional depth of understanding of data generated by the national survey as well as exploring vital issues beyond what is feasible in the extensive study. These investigations would concern:
  - ... factors in the employment of subprofessionals, staff and organizational adaptation, and implications for service delivery
  - ... impact of factors of organizational climate and structure on workers and work performance
  - ... determinants of worker job mobility and implications for service delivery

Each of the special area studies is designed in three phases.

I. Overview study: conceptual development and preliminary field investigation to provide a limited field demonstration of the adequacy of the conceptual scheme from the above points of view and in terms of the ability of the scheme to be operationalized so that the relevant variables may be measured in the national survey.

II. Technical assistance in incorporating results of Phase I in developing, pilot testing and planning the national survey.

III. Intensive field investigation after Phase I and concurrent with Phase II, to develop and refine the conceptual framework completed in

Phase I to give a more useful extension and elaboration of the conceptual framework, serve to extend the understanding of the national survey data, and permit more perceptive analysis of these data for further investigation of the specific topics and for application of insights from the findings to the practical problems of agency management and policy.

PUBLICATIONS FROM THE NATIONAL STUDY

Three types of publications are being published under a series title *National Study of Social Welfare and Rehabilitation Workers, Work, and Organizational Contexts*, with individual publications in each series numbered in order of publication. Publication is expected as each unit of work is completed. The three series are:

Working Papers. These will be informal and interim-type publications including state-of-knowledge and literature review papers, theoretical essays, and other informal conceptual and research methods papers that are expected to have utility for workers and managers in social welfare and rehabilitation agencies and/or scholars working on similar research problems and students preparing for work in this field.

Research Reports. These will be reports on specific units of research activity including final reports on the phases of the developmental and overview studies, reports on specific problem areas, and other more or less formal report-type documents. The purpose here is to present a conceptual framework for research and an analysis of findings resulting from empirical investigation.

Program Application Reports. This set of publications is directed to policy makers, agency and program managers, and workers. The objective is to take research findings one step more toward interpretation and translation for use than is feasible in the research reports themselves. This set is visualized as covering a fairly wide variety of topics at several levels of analysis ranging from interpretation of findings for application in everyday work in practice, management, and policy making to reports by local or State agencies on actual program changes and/or demonstrations growing directly out of some of the research findings. A variety of authors is expected, primarily "program" staff (policy makers, managers, workers, teachers) with some collaboration between program and research staff. Papers of national interest prepared by staff in local, State, and nongovernmental programs will be published as resources permit. This class of publications is designed to begin building a bridge between research findings and their use in management and practice in operating agencies.

SUMMARY OF SPECIFIC PROJECTS

National Survey of Social Welfare and Rehabilitation Workers, Work, and Organizational Contexts

This is a major research effort planned for initiation late in 1971. The survey is being developed in three stages to make it possible for the first time to link personal, social, demographic, education, work experience, work assignments, and attitudinal characteristics of workers with, on the one hand, some meaningful characteristics of the work tasks they perform and, on the other hand, characteristics of the organizational context and service or income delivery systems in which they work.

Present plans call for a research approach using a personal interview survey methodology and based on a national multistage probability sample of public and private organizations engaged in service delivery and policy and planning roles in social welfare and rehabilitation services. The research plan calls for a sampling strategy based on: (1) a sample of organizations delivering, funding, or planning services; (2) within organizations, either a sample or census of workers; and (3) a sample of tasks performed.

The purpose is to relate characteristics of tasks to characteristics of workers and in turn to characteristics of the organizational context in which they work. The study will focus on a variety of manpower dimensions including such topics as patterns of worker utilization, turnover, worker characteristics, kinds of tasks performed, and characteristics of organizational climate and structure. Data items will be included here which can be analyzed in the context of the research problems of the intensive studies in order to provide quantification and verification of their findings.

These data are expected to be useful to a variety of users within and outside the government. They are expected to yield extensive quantification of different manpower dimensions which, when analyzed together with the results of the intensive studies, would provide important insights into several issues of interest for services and manpower policy and planning as well as for agency administration and scholars in the field.

Some of the topics that are expected to be included are:

- personal and demographic characteristics of workers
- salaries and working conditions
- job and position information
- job tenure
- education and experience
- selected worker attitudes
- selected career attitudes and expectations

- characteristics of a sample of tasks
- selected characteristics of the organizational structure, function, and climates

A Study of Determinants of Worker Job Mobility and Implications for Service Delivery

The study and interpretation of worker job mobility has long been a concern of social scientists who have studied worker and organizational behavior and organizational effectiveness. The importance of this mobility stems from its implications for costs in recruiting, selecting, training, and placing workers; its impact on the quantity and quality of work performed and services rendered; its meaning for the workers themselves and their careers. This research is directed toward an exploration of the issues and effects of worker job mobility and the identification and exploration of critical questions about: (1) the ways in which worker job mobility can be characterized meaningfully from the viewpoint of work planning, organization management, education and training, and worker career management and planning; and (2) the ways in which different attributes of the work situation and characteristics of the workers relate to different types of worker movement.

In order to deal meaningfully with worker job mobility (interjob, interagency, and to and from the field) it must be characterized as a dynamic phenomenon with different implications for both the worker and the employing organization and in the context of different situations and circumstances. This characterization must spring from a conceptual framework that depicts different types of mobility within the context of (1) the settings in which it takes place; (2) the different types of movement between jobs; (3) those workers who contribute differentially to the occurrence of different types of movement; (4) the nature of the process in which entrance into or exit from specific job or agency employment is the end result; and (5) the theoretical nature of worker job mobility as both a characteristic of workers and/or organizations and work settings.

A Study of the Impact of Factors of Organizational Climate and Structure on Social Welfare and Rehabilitation Workers and Work Performance

Generic sociological and organizational analysis indicates that there are complex relationships between the work to be done by and within an organization and the structure and climate of that organization. In order to produce knowledge which may be useful for affecting changes in the social welfare and rehabilitation field, concepts in organizational analysis must be specifically applied to this field. The relationships which exist within the field must be specifically identified and measured. This study is to identify sets of variables which are likely to yield meaningful interrelationships in the social welfare and rehabilitation field, so that the organizational contexts of social welfare and rehabilitation work and their impacts on workers and worker roles may be adequately characterized. The adequacy of this characterization will be in terms of the extent to which it provides knowledge which may be used for the further development or modification of jobs; design of work units and subsystems; education, training, and recruitment of workers; task structuring; and the organization of service delivery systems.

A Study of Employment of Subprofessionals, Staff and Organizational Adaptation, and Implications for Service Delivery

This study is to perform the work of conceptual development and empirical investigation of the processes involved and the effects of the trend toward the employment of a new type of service worker called variously "subprofessional," "nonprofessional," "paraprofessional," and/or "new-careerist." The conceptual development must eventually lead to a methodology for data collection through which the interrelationships and adjustment processes which arise within and among organizations, workers, work roles, and client services may be empirically determined.

The trend toward the employment of subprofessionals, both indigenous and nonindigenous, in social welfare and rehabilitation work appears very likely to increase in scope. There are various sources of pressure and justifications for this trend. It has pervasive impact on the structure and climate of the employing organizations; on the roles, self-perceptions, and career patterns of both professionals and nonprofessionals; and on the relations between agencies and their clientele, between agencies and the community, and between agencies and extracommunity reference groups. The patterns of these impacts are not clear, although they seem likely to be different, depending on the kinds of pressures and justifications to which agencies respond, on the vicissitudes of continuing pressures and justifications, and on the developments stimulated by organizations' and workers' responses to the inclusion of subprofessionals.

The impetus for this study arises from a need for information which may be useful for anticipating the events consequent on the inclusion of subprofessionals in social welfare and rehabilitation service organizations, so that discontinuities, conflicts, and abortive compromises which affect workers and/or the adequacy of services to clients may be minimized.

Some important questions are:

> Are there various types of subprofessional workers? If so, how can these classes of workers be characterized conceptually to be meaningful for manpower and service delivery planning and management?

What are the forces that impinge on social welfare and rehabilitation agencies to incorporate the various types of workers into their organizations, and how does this affect the pattern and results of differential manpower utilization?

How can the various patterns or modes of using subprofessionals be depicted or described in a meaningful manner?

At a given point in time, do these depictions of worker functions vary systematically among the various components or levels of a given organization?

Do these depictions of worker functions evolve or change over time? If so, what variables seem to be associated with these changes?

How are different modes of subprofessional assimilation and utilization reflected in selection and training procedures and in the amount of prescription associated with work functions?

How can the consequence of the variables identified above be characterized?

What are the dynamics of introduction of the subprofessional into the agency? What are the processes of introduction? What is the impact on the division of labor?

A Study to Develop a Methodology to Measure Meaningful Dimensions of the Work Content of Social Welfare Jobs (Task Analysis Methodology)

Work on this project both "in house" and under contract is an effort to achieve a much-needed conceptual and methodological breakthrough.

Work has been pushed toward the measurement of the "transformation" attributes of a task. Each unit of work—that is, each task—can be meaningfully viewed as a "bit" of worker behavior that transforms a situation or condition into a new situation or condition consistent with the objectives of the stream of work in which it is embedded. Thus, its meaning can only be revealed by research methodology that links the work behavior and the results from the worker's action in a way that is relevant to work goals.

The conceptual base for this research is an image of the service organization as an ongoing "open" system and of work units or tasks as units of activities which can be defined as separable entities which transform a situation into a new situation or result that is meaningful in terms of system goals. One basic assumption is that different worker actions can have the same end result and that different end results can be achieved by the same worker actions. The impact of the task on the goals of the system grows out of a configuration of the different task elements and cannot be explained in terms of simple causation.

Development of a Taxonomy of Agencies, Services, and System Maintenance Activities

A study to develop and test a categorization scheme and data collection procedures for identifying and classifying social welfare and rehabilitation services and system maintenance activities.

The objective is a present state-of-the-art conceptual framework and procedures for identifying and classifying all major units of work output of public and private social welfare and rehabilitation programs in primary agencies or as secondary programs in educational, health, and other types of establishments.

Taken together, the categories of services and the categories of system maintenance activities should include all major work units produced by the delivery system—i.e., should provide major categories of everything that gets done by the agency. Other sets of categories should make it possible to subsume and group smaller units of work such as tasks, task clusters, task sequences, and specific work procedures, in a manner that will relate the smaller units to agency goals and objectives. A taxonomy of services and system maintenance activities serves as the first or largest classification of "what has to get done" to meet agency objectives and thus becomes a categorization of agency "outputs" and serves as a bridge between agency goals and objectives and specific work activities. On the other hand, it serves as the largest unit for accumulating related work activities such as tasks and as the organizing frame for the major classifications of work that gets done.

This project will focus on developing a hierarchical model structure which categorizes social welfare and rehabilitation activities on multiple dimensions so that the different structures of agencies can be reflected in useful, unambiguous categorizations that have consistency and comparability from one situation to another. The end result will be a taxonomy of services and system maintenance activities and a typology of agencies as a tool for identifying the important interactions between and among different kinds of agencies and different types of workers and work. The typology of agencies will provide a similar bridge between the work of agencies and broader social goals.

WORKING PAPERS #1

This volume contains working papers related to three of the areas of special interest: organizational climate and structure; worker job mobility; and employment of subprofessionals. Other papers of special interest to managers relate to the general systems approach and manpower development planning.

A SYSTEMS APPROACH TO MANPOWER UTILIZATION *

Jean Szaloczi Fine

We are all familiar, frequently painfully familiar, with the dilemmas that confront managers and researchers in operating agencies as they try to cope with the problems of manpower and manpower utilization. We seem to be in a general and long-standing crisis about manpower. When we undertake action to alleviate it, we find ourselves not knowing what to do or doing something that doesn't work the way we want it to work. At that point we demand more research. But when we do undertake research, we find that it takes a lot of money and a long time. We feel that we really can't wait, we have to do *something.* We say research will take too long, and what we need is action *now.* And thus the cycle continues. We don't have enough time or money for research, and we can't act to our satisfaction because we feel we don't know enough and must have new knowledge.

I would like to suggest that the application of systems analysis and general systems concepts and techniques in research and in management is one way of breaking the cycle. These concepts are basic to a major research effort by the Social and Rehabilitation Service to study critical variables and their interaction among workers, their work, and the organizational context in which the work is performed. This research is expected to provide new and useful knowledge and tools for administrators to analyze the work of their agency and to use their manpower more effectively to achieve the goals of that work. However, systems concepts are immediately useful, without further refinement, in helping administrators come to grips with some of the manpower utilization problems that continually beset them.

In discussing systems concepts with you I would like to make clear from the beginning that I am not discussing the computer-complex-technology phenomena which are often mistakenly thought of as comprising the whole of systems analysis. Rather, I am talking about a way of looking at agency objectives and of managing work activities that achieves the purpose of the work effectively, efficiently, and in consonance with the needs and values of persons who perform it.

Using a systems approach is not the same as being systematic, although it does presuppose a certain amount of systematic behavior by managers and by workers. Systems concepts are generally consistent with the basic theories and values in social welfare and rehabilitation, but some crucial ideas are different from operating assumptions which have determined the way things have been done in the past. Systems concepts do promise a handle for solving some problems that have proved rather intractable to date. However, if we are to capitalize on the potential of general systems concepts, we must understand them in two somewhat different uses: (1) as an analytic tool, that is, as an approach and a means of looking at the agency and understanding what it does; and (2) as a management tool, a way of making and implementing management decisions. Computers and complex technology are frequently useful in systems problems, both in analysis and in management applications, because large amounts of information are needed and needed quickly. But computers are no more the essence of systems analysis than is the dictaphone used by the caseworker.

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*Adapted from a paper presented at the 1968 Conference of Executives, Child Welfare League of America, July 3, 1968, Vail Village, Colorado.

We might, at this point, interrupt and ask ourselves "Why bother?" Is it because "systems" is an "in" thing and, naturally, we all want to be in the know? That is not really a reason for studying and grappling with complex ideas. A better one is that systems approach is a major effort of the modern world to come to grips with and to defeat five long-recognized basic laws of organizational behavior which have perhaps not been taken seriously enough in the past:

1. Parkinson's Law(s) (1965)

   "Work expands to fill the time available to do it."

   "Expenditure rises to meet income."

2. The Peter Principle (1969)

   Everyone, present company excepted, of course, is working at his highest level of incompetence, since if a person is competent he is promoted and if he is not promoted he must be incompetent.

3. Murphy's Law

   If there is a possible way to do anything wrong, Murphy will find it.

4. Newton's third law applies to human organizations and management as well as physical phenomena. In this context we would phrase it this way: "When money is given to one program or function it must be withheld or taken from another program or function."

5. Occam's Razor, or the law of parsimony, which has been the dictum of scholars since the fourteenth century. Paraphrased for our use, it is, "we must take care in managing an organization so that the means do not become the ends." Otherwise the structure we carefully build for accomplishing system goals will eventually, because of its complexity, costs, and inflexibility, be unable to adapt to the demands of its environment and will collapse of its own weight or at least achieve few of its goals. A well-known example is the fund-raising activity that uses 90 cents out of every dollar collected to pay for the fund-raising process.

These may seem facetious but, taken seriously, they identify the major types of problems in managing organizations that prevent these organizations from accomplishing their intended purpose. More conventionally, I might say that the reasons for using a systems approach to manpower utilization are to:

- maximize the delivery of services
- optimize the use of available manpower, so that the time and cost needed to produce adequately prepared workers and the quality and quantity of social services are in a reasonable cost/benefit relationship
- minimize the friction in the system, so that we minimize the gaps, delays, and inefficiencies in the service delivery system, ineffectiveness in service, time and costs in preparing workers, low worker morale, underutilization of workers, etc.

DEFINITION OF SYSTEMS

Before discussion of general systems concepts in terms of social welfare and rehabilitation, we need a common understanding of what we are talking about. Let us turn to a classic definition of a system: "a set of objects together with relationships between the objects and between their attributes" (Hall and Fagen, 1956) in which objects are the parts of the system, attributes are the properties of the parts, and relationships tie the system together. In more operational terms, a system has been defined as "an integrated assembly of interacting elements, designed to carry out cooperatively a predetermined function" (Gibson 1960). A "system" is in some sense an objective reality; that is, the interacting elements cooperatively carrying out a predetermined function correspond to some external reality that is more or less visible to all observers. This is understood most clearly when we are considering mechanical or biological systems. But systems are in another sense a creation of the observer who sees the interaction of parts and relationships as producing some meaningful outputs. He, therefore, sorts out from a chaotic reality some meaningful dynamic phenomenon with parts, relationships, purposes, and consequences and sets them as a system against their environment as a figure against ground. Thus a system is created for analysis, and the boundaries of the system are determined by the purposes of the analysis, although they will coincide with some boundaries that are more or less visible in objective reality. To illustrate, for some purposes a manager will need to consider his agency as a system; for other needs he will need to consider it as a subsystem in a community; while in other circumstances he will want to see it as a subsystem in a national organization or system.

CHARACTERISTICS OF SYSTEMS

It is useful at this point to consider the characteristics of systems.

A SYSTEM IS DYNAMIC

Using a systems approach involves necessarily the assumption of process, change, dynamics. We are looking at a stream of time rather than a slice of time, at a happening rather than a thing. When we are looking at a service delivery system or a manpower development system we are looking at a system that is both "open" and "learning". By an open system is meant one that is receiving input from its environment and is responding meaningfully to that input. By a learning system we mean an open system which is using information from the environment to modify its internal processes to produce outputs that are more effective responses to environmental demands. That is, it obtains information on environmental demands and its own processes and performance and feeds that information back through the system in order to alter system behavior in such a way as to increase the probabilities of success in achieving objectives.

If we are looking at an open learning system we will see the process as looking different if viewed forward rather than backward. We see change over time. We see the end results of processes as looking quite different than the beginning of those processes. Today is different from yesterday, etc. As Norbert Weiner (1954) expressed it, the analogy is more like that of an arrow pointed in one direction in the stream of time rather than like a line segment facing both ways which we may regard as going in either direction.

This may seem obvious, but consider for a moment the number of things we do in social welfare that are the same as we did them in the past. We may say that each client is unique, but quite often we have the same kinds of personnel perform the same tasks in the same way regardless of differences in clients and client characteristics. We have really only begun to modify our system behavior so that it varies with initial conditions of inputs and with variations in signals from the environment.

THE SYSTEM IS DISTINGUISHED FROM ITS ENVIRONMENT

We must recognize that the idea of a system clearly implies "boundaries" to divide what we are looking at from what we are *not* looking at. Regardless of how much we see our system or agency interacting with the environment and other social institutions, we must for the purposes of analysis identify for ourselves the boundaries of the *system being examined.* Everything that is outside these boundaries we will regard as environment. Much of analysis is concerned with the impact of the environment, the input from the environment to the system, and the constraints placed on system behavior by the environmental conditions and the behavior of other systems. For the purposes of this discussion, let us regard the agency itself as a system and organizational and operational units, such as departments, divisions, or programs, within the agency as one level of subsystems. Staff as operating components are a second level of subsystems. They are biological and psychological systems, rather than a social or organizational system, as is the agency. As human components they are nevertheless subsystems. As human beings and as subsystems, workers function as system components in ways that are very different from the ways a machine and its parts function.*

We must keep in mind that for other levels of analysis of manpower, we might wish to specify other system boundaries. For example, if we wish to analyze the manpower situation in the United States or a State or a city, we would want to define colleges, universities, schools of social work, and agency inservice training activities as subsystems in a manpower development or manpower production system. In that case it would be useful to regard the agency system which we are examining today as really two separate systems; i.e., its inservice training program would be part of the manpower production system along with subsystems outside the agency, and its service delivery system would be a user of the output of the manpower production system.

THE WHOLE IS GREATER THAN THE SUM OF THE PARTS

Within the system boundaries, each component of the system is so related to its fellow parts that a change in one part will cause a change in all of them and in the total system. Changes may be small and the resulting impact minute, but frequently small changes may have a visible effect throughout the system. Social workers and rehabilitation counselors often see a seemingly minor change in a client's situation or in the therapeutic input to a client result in a large change in client motivation and behavior. Small changes can and do effect such changes in other systems because a system is not a simple composite of independent elements—it is coherently and inseparably whole. A corollary of the notion of wholeness is the notion of non-summativity. That is, a system as such cannot be understood merely as the sum of its parts. An attempt to analyze components taken out of their living context destroys the very object of interest. An examination of each of its parts in turn will not reveal the function of a system. It is necessary to neglect the parts for the whole and to attend to the core of its complexity, its organization and operation.

SYSTEMS ARE DEFINED BY PURPOSES AND OPERATIONS

All systems, biological, social, and psychological are characterized by three attributes which determine system performance and thus are important for this discussion: purpose, parameters, and process. It is important to keep in mind that a system is defined by its purpose and the organization of its processes; it is *not* defined by its structure.

Every system has purpose, a reason for being. A purpose is operationalized as goals and objectives, which may be multiple, inconsistent, and not always explicit. Identifying and specifying purpose and objectives in a clear operational useful manner is one of the most difficult tasks in organizational life. Gross (1965) offers a cogent and helpful discussion of the problems which are posed by lack of a well-developed language of organizational purposefulness, by the need for confidential and tacit objectives, and by multiplicity and inconsistency among objectives. Also organizations may have well-defined formal objectives but those are congruent only partially, if at all, with the objectives of specific managers or workers (Levinson, 1970).

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*Some implications of this proposition are developed in the following paper, "Some Issues in Manpower Development Program Planning."

In addition to purpose, each system has parameters, operating dimensions which serve to direct or to constrain the options by which a system seeks to fulfill its purpose. In studying service delivery systems, we focus on such important parameters as legislative or charter authority, technology or state-of-the-art, financial resources, skill and time resources, social climate and public opinion which requires or prohibits logical options, etc. Stated in terms of an operating agency, the purpose is its reason for being, what it is seeking to achieve, what it is supposed to get done. Parameters are requirements, limits and constraints on what it may do or how it may do it. Parameters may be relatively stringent and permanent (as, for instance, those set by legislation or the state-of-the-art) or they may have a greater or less persistence in time and be subject to purposive change (as those set by operating policy and available resources)

Agency purpose is achieved within the bounds of its parameters through operation of the system processes of the agency. These processes may be more or less clear, well-defined, understood, and managed. Efforts to manage agency process result in agency work plans, a division of labor among staff and operating departments, organization of work groups, design of work procedures, and the specification of the work steps to be done to achieve agency purpose. The way in which work is organized and steps are specified and the way in which work actually gets done become the operational expression of the parameters, which in turn are the purpose *in operation.* Thus, in operation the process is reflexive, so that parameters operationalize and modify purposes; procedures operationalize and modify parameters; and actual work performance operationalizes and modifies procedures. A discrepancy between purpose and performance is a signal for self-study and analysis of system functioning.

THE SAME RESULT MAY COME FROM DIFFERENT ORIGINS

In an open learning system, results are not determined so much by the initial conditions of the input to the system as by the nature of the process—the system parameters operationalized in procedures and in work performed. The same results may spring from different origins, and similar origins may have different results. Not only may different initial conditions yield the same final result, but different results may be produced by the same "causes." In general systems theory, this is known as the *principle of equifinality.* It is a principle that has a ring of reality to workers in the social professions, who often find themselves performing personal interaction tasks in the same way in what seem to be similar situations, with uncomfortably different results. A basic research objective in much current work is identification and measurement of critical attributes of input and process and their interrelationship and consequences. If we wish to understand the determinants of output we cannot look only at initial conditions but must study the purpose, parameters, and processes of the system. To state the principle of equifinality in oversimplified terms, the outcome for the agency is determined more by what workers do than by what the client brings to the agency.

We are beginning to see some interesting practice and research confirmation of the concept of equifinality. Jesse Gordon (1969), for example, in his very insightful analysis of MDTA projects for disadvantaged youth, noted that programs that began with actual work experiences—i.e., a job— seem to succeed rather consistently, while programs that began with screening, testing, training, and counseling before actual work experience had a much lower success rate. Youth who under other conditions had appeared "unmotivated" seemed to be "motivated" when the initial experience was with their own job rather than with getting ready for a job. The implications of this and similar findings is that "motivation," which the social work and other helping professions have traditionally regarded as being an "initial condition" of the client or patient, a service system "input" about which relatively little can be done, is in fact a consequent of system operation. This may mean that the best "preparation" or "motivation" for getting into the system is *immediate involvement in that system.* To summarize the concept of equifinality in different words: the operation of a system is circular, not linear, and process is more important than categories.

A LEARNING SYSTEM MUST MONITOR ITS PERFORMANCE

An open learning system is characterized by information gathering and feedback. In other words, any open system, whether it is a biological organism, a self-regulating machine, or a social organization, must collect information about its environment and about the effects of its performance; i.e., it must sense its environment and monitor its performance. This information must be fed back into the control center in order that system behavior may be adjusted so that it can respond differently to the environment and can process inputs differently, thus keeping performance on target to achieve goals. Managerial controls must be based on a review of performance compared to purposes, parameters, and procedures. The options for change or correction of performance may be modification of any one, any combination, or all of these attributes.*

To those who are seriously interested in the information feedback-control process as it relates to the phenomenon of invention, innovation, and change I would commend a book by Donald Schon (1967). Most of his illustrations are from the physical sciences and industry, but the principles and processes he identifies apply equally well to the social sciences and to the invention and innovation of new solutions to social problems. Also useful in seeing the contrast between the "professional" and the "systems" approach to innovation is Sayles (1964).

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*For a very helpful discussion of one aspect of the necessary information gathering and feedback, see Elkin (1968).

SUMMARY OF CHARACTERISTICS OF A SYSTEM

To summarize the characteristics of a system before we begin to apply systems concepts to manpower utilization in operating agencies, a system:

- is comprised of interrelated and interacting parts or components in such a way that a change in one affects all other parts and the whole.
- is dynamic and changing rather than static.
- is purposive.
- has boundaries which can be identified for purposes of analysis, so that the system can be differentiated from its environment.
- is characterized by three attributes which determine performance: purpose, parameters and processes or procedures; so that performance operationalizes and modifies procedures; procedures operationalize and modify parameters; and the parameters operationalize and modify purpose. Thus, the process is circular, and the nature of the process is more important in determining system performance than are the categories of input.
- is characterized by a sensing apparatus, a feedback of information into the control center, and an adjustment of system behavior.

GENERAL SYSTEMS CONCEPTS APPLIED TO OPERATING AGENCIES

Applying general systems concepts to operating agencies requires an examination of the operating environment of the agency and a development of a logical strategy of procedures operating within agency parameters.

THE AGENCY IN THE COMMUNITY SERVICE SYSTEM

To examine the implications of some of these ideas for utilization of social welfare manpower, let us begin by identifying our system of concern.* Suppose we define the system of concern as one particular agency and look at it in the context of the community in which it operates. We must keep in mind the complex of social needs and services available in that community for several reasons because:

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*For a very clear and useful discussion of systems approach to management, as contrasted with a bureaucratic approach, see Young (1966).

1. Probably the agency was developed to fulfill a need in the community. Thus the agency serves as a subsystem of the community service system, and this affects the number and kinds of options in defining agency system goals and parameters.
2. Community needs and other available services in the community affect the inputs our agency system has to deal with; that is, the kinds of problems and types and numbers of clients that will be coming into the system.
3. The complex of needs and services available in the community affects the kind and amount of resources available to the agency. Its purpose reflects a share of the work that must be done, and it must compete with other service and nonservice systems for a share of a finite total of available financial and human resources.

DEFINING THE PURPOSE

A first task is to define the purposes of the agency. These purposes should be formulated as goals or ends to be accomplished. They should not be formulated in terms of means. For example, an agency purpose would not be formulated as "giving social services." To be most effective, the purpose must be stated in terms of results desired. The means by which these ends are accomplished grows out of identification of operating parameters and design of procedures. Since many social services begin—that is, a client enters the system—with a crisis, we frequently formulate the purpose in terms of problem solving or in supplying a need. In doing this we must take care to partialize the problem into those parts which can be handled within the parameters of the agency and those parts which are outside. For example, we would not specify casework process when the goal is to change a structural unemployment situation. Procedures should be limited to those activities that are service agency purposes and also are within operating parameters. Further, unless resources are unlimited, or at least exist in abundance to match need, the operating objective should specify the proportion of the total purpose that can be served within available resources.

AN EXAMPLE OF OPERATIONALIZING PURPOSE

We take what under the best of conditions are abstract and generalized purposes and operationalize them; that is, we formulate operating objectives. For example, we might have a purpose or goal of adoptive placement of infants of all mothers who request such placement. We would need to begin to operationalize this purpose by identifying parameters. We will need to estimate how many infants and how many prospective approved adoptive homes can be reasonably expected in a given year. We need to look at the ways in which agency policy and procedures serve to modify the potential input of infants and parents. For instance, locating the agency in one part of town rather than another may decrease either the input of babies or the input of prospective parents. Rarely can we locate an agency for optimum accessibility to both prospective parents and for mothers and their babies, since they tend to live in different neighborhoods and use different modes of transportation. Certain intake procedures may cause mothers or prospective parents to withdraw inappropriately from the situation and thus affect the agency's available input. The agency can undertake public information activities that can increase the input. Clearly, the information and feedback mechanism in the form of research, statistics, operating and professional experience, and other information helps identify and modify system parameters. In any event, we need to make some estimate of the amount of work to be done and the possible balance or imbalance in various parts of the system; e.g., infants, adoptive homes, boarding homes, etc.

SELECTING AN OPERATING STRATEGY

We need to look at what resources are available and at what operating options are actually open to us. At this point the state-of-the-art becomes an important issue in identifying system parameters. We must begin to think through alternative options and allocation of resources based on our estimate of the magnitude of the task, the amount of work to be done, the state-of-the-art or technology for doing it, and resources available. We need to think through not only what must get done but how it should be done and for whom it is done. Use of a system approach makes it possible to maintain the individual-client focus of clinical decision making and at the same time to achieve some of the efficiency of a "stream-of-service" process. It does, however, require us to make our purposes, parameters, operating constraints, procedures, and performance standards explicit, logical and effectively interrelated.

ANALYSIS OF OPTIONS OFTEN FORCES CHANGE IN OBJECTIVES

To continue with the example from adoption, suppose we estimate the number of babies needing placement and the number of prospective adoptive parents requesting babies and see that the number of available babies exceeds the number of available homes. Several operating options are available to us, depending upon our policies, our resources, our technology and our performance potential:

We may elect to recruit more adoptive homes.

We may elect to reduce the number of requests for placement by helping more mothers to keep their babies.

We may place the "surplus" babies in foster care.

Each option has different resource and work steps requirements; each has a different cost/benefit relationship to agency purposes and to its operating parameters. Thus, if we elect the solution of recruiting more adoptive homes we have added to our resources—for this purpose we may wish to regard a prospective adoptive home as a resource—but to do so will necessitate the investment of other resources—money, staff time, and skill—and we must delay accepting babies until we have recruited homes. This delay may force an interim strategy of foster care to cope with the reality of doing something with the babies.

We must make an estimate of performance capability on the basis of the state-of-the-art, our human resources, and our ability to specify procedures. In particular we must ask overselves if we can recruit adoptive parents of adequate quality and quantity, and do so within the operating parameters of the agency.

If we elect either of the other two solutions—helping mothers keep the babies or placing them in foster care—we have modified our original purpose of adoptive placement for *all* mothers who request it. Also, different mixes of money and manpower resource requirements are implied by the two solutions. The foster care solution will require resources in the form of foster parents, staff to plan, direct, develop, and supervise foster homes as well money to pay the expenses of foster care. The solution of helping mothers keep their babies would undoubtedly require rather sophisticated workers to help the mothers work out viable solutions to their personal living problems. The "mothers keep" solution may have to be partialized since, if some mothers are to be able to keep their babies, help may have to be mobilized from outside agency resources. For example, if a private child welfare agency elects this solution, it may have to be formulated in a partialized form such as: "Help only those mothers keep their babies for whom employment or public welfare is immediately available" or "Help those mothers keep their babies for whom adoptive homes are not available." In the current social scene these partializations can be usually translated "Help black mothers keep their babies and white mothers relinquish their babies."

Again, the state-of-the-art becomes an issue because we must estimate our ability to perform the actual work tasks required to achieve the purpose within identified constraints. For example, if we have only a few highly skilled professional workers and the actual work of successfully helping mothers keep their babies requires sophisticated skill, we cannot elect that solution without some modification. We may need to limit our activities in helping some mothers keep their babies and increase our efforts in recruiting more adoptive homes. We must evaluate all options in terms of resources required and consequences to be expected.

I will not try to explore all branches of the decision tree and examine all alternatives as you will need to do when you analyze your agency's operation. I would like to do only enough to give you a feel about how specifying operating options is related to manpower requirements and utilization.

MIXED STRATEGIES MAY BE REQUIRED

If we elect to place an infant in foster care we must next decide whether this is a long-range or an intermediate solution; that is, whether this is an end result or merely a stage in a recycling process. In other words: Do we leave the baby in foster care indefinitely, or keep him in foster care only long enough to help his mother? Do we elect intervention strategies to the purpose of returning him to his mother? Do we elect to try to expand our resources of adoptive homes? Or, stated more accurately for systems analysis: When do we leave a baby in foster care and which baby do we leave there? When and with which mothers do we attempt what kinds of interventive strategies? Under what conditions do we undertake which activities to recruit more adoptive homes? In all instances we must specify tasks which must be performed and the level of performance necessary to achieve desired end results.

As we investigate and study the options available to us, we must keep in mind that for many similar initial conditions different system behavior can have similar results. And different initial conditions can, through the same system processes, become similar end results. Thus, when any given set of initial conditions and actions is limited by available resources, we have operating options. Instead of being doomed by the nature of initial conditions to only one action process, we can strive for different mixes of initial conditions and system behavior in order to produce the desired results. Given any set of expected inputs, we must examine our available resources and the current state-of-the-art and then must specify procedures and make estimates of anticipated performance, so that we can systematically array the available options and estimate the probability of success with specific mixes of inputs, resources, and specified procedures.

SYSTEMS APPROACH: MORE WORK AND MORE REWARDS

Even the above sketchy application of some general systems concepts to agency operation sounds imposing. Actually it is both more and less imposing than it seems. It is less imposing than it seems because it is the kind of thing a good intake worker does when she engages in what to the layman would appear an almost casual and random conversation with the parent and later says "I am sure that this father will benefit from the man's group activities more than from counseling, but a steady satisfying job would do more good than either." Or "This mother really needs someone to act as a sister or a best friend more than she needs therapy." You can cite hundreds of examples in which a worker coordinates a complex set of initial conditions and alternatives in service options to arrive at one or more mixes that she predicts will produce the desired results.

The task becomes imposing when we realize that highly skilled persons tend to be relatively unaware of the minutiae of the process by which they obtain their results. To attend to the details of performance in order to analyze what is being done seems to inhibit performance in almost every kind of work. Some rare individuals can both perform expertly and at the same time intellectually separate themselves from what they are doing in order to analyze their own internal and external behavior. This is a rare gift, however. For most people the achievement of a high level of skill requires an internalization of skill into personality and cognitive functioning so that many critical aspects of work process are relatively unconscious. This discontinuity between a self-conscious awareness and adept performance is clearly seen when a highly skilled actor plays a role, when a golf champion plays a game.

Even though the skilled work and skilled analysis can rarely be done by a single worker, it is possible to team up someone who is skilled at observation and analysis with a sophisticated worker in order to identify and specify exactly what is being done to achieve results, so that it can be taught to less sophisticated persons. Sometimes it is possible to fragment out only part of the sophisticated performance and describe it so that less skilled persons can follow and incorporate skill elements into their own performance. If, however, whenever and wherever we can analyze work process and can link inputs effectively through specified procedures to outputs we can achieve better use of manpower.

If we can specify a process—can program it, if you will—rather than making on-the-spot individual unsophisticated decisions, we will achieve better equality and greater efficiency in services and, most importantly, we can use scarce manpower with high skills to design the critical decisions to be implemented by less skilled workers. Predicting the mix of initial conditions and operations that can produce the desired results becomes more imposing and more vital as we examine our operating problems. For one thing, we rarely do the analysis in an orderly and complete manner. Mostly our purposes are implicit, not explicit; we fail to recognize operating constraints; we have inadequate information; we fail to specify all procedures; we fail to estimate performance potential; we fail to monitor our performance and do not feed back information. Rarely do we really look at all of the practical alternatives—all of our options. Nor do we systematically obtain and use information about outcomes. For the most part, we perform analysis at a low level of self-awareness that makes it very difficult to teach the process to new workers or, for that matter, to say clearly what we have in fact done. When we do not have a clear picture of the nature of the process itself, we are handicapped in trying to combine it with specific input conditions for a systematic planning of service alternatives.

These concepts are, even in an incomplete and unrefined formulation, useful for analysis of manpower utilization problems in their present stage of development. Working with these concepts, "trying them on for size," looking at their practical implications from the standpoint of everyday practice and agency management not only can have value for the individual manager but can help the field push the "state-of-the-art" a little further. In the meantime, not waiting for research, you can apply them at the operating wisdom level in dealing with your own manpower problems.

As we approach the agency from a systems point of view, we specify the goals of the agency, translate these goals into specific operating objectives, and then delineate the tasks that must be performed and the level of performance. To make this analysis useful, we must array work tasks along dimensions that are meaningful in terms of the operating objectives. In the beginning, we describe what is. When we have a good understanding of what is going on, we can begin to reshape our system and develop more effective service delivery and manpower utilization.

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SOME ISSUES IN MANPOWER DEVELOPMENT PROGRAM PLANNING

Jean Szaloczi Fine

Any agency which invests time and money in development and training of staff must consider different options within some framework of agency objectives in such investment. It must consider all objectives served by all manpower development activities which range in type and unit cost. All formal and informal education and training activities must be considered, including on-the-job training and staff seminars whose purpose is education. It must consider all costs of training including the "cost" of on-the-job learning when the worker is less productive than the average experienced worker.* Manpower development activities must be considered in the light of both the agency's primary purpose and secondary goals.

The discussion which follows assumes a pervasive need to articulate more closely the goals of the service delivery system with the development of the human components through whom the system operates. It is assumed that the effectiveness of manpower development for service delivery depends not only on the rationality and reasonableness of allocation of funds and other resources but also on the development of policy and procedures that promote both effective delivery of services and efficient functioning of the human components. Also, it is assumed that few agencies operate at an optimum allocation of resources and efficient functioning of human components.

PREMISES FOR MANPOWER DEVELOPMENT PROGRAMS

Derived from the above propositions are several premises which have meaning for planning and operating manpower development programs and which should be noted specifically.

Agency Services, Support Activities, Personnel, and Manpower Development Must Be Regarded as a Single System

All activities within an agency are part of a single system, and their total functioning determines agency performance. Activities as different as intake,

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*For a brief, cogent description of some different ways of looking at costs and the different meanings of costs in decision making see Cooper and Company, *The Cost and Output of Graduate Social Work Education*, Washington: Social and Rehabilitation Service, U.S. Department of Health, Education, and Welfare, 1970.

personnel selection, accounting, files, and research are all subsystems whose collective effectiveness and efficiency directly affect the work of the agency and the effectiveness of use of resources. Each worker—clerical, service, managerial—also serves as a component in the system, a subsystem within an organizational subunit, and therefore as a subsystem to be considered in the operation of that subunit and the entire agency. The individual effectiveness of each worker impacts to some extent on the entire agency and all other workers. His effectiveness, however, is evaluated not only on his achievement of his personal goals but on his effective articulation with other workers to achieve subsystem and agency goals. The assumption made here is that the goal of policy and program development in all agencies is to bring about a better coordination of all subsystems, including workers, to serve common goals.

It should be recognized that, because of their position or because of personal authority and power, the actions and decisions of some workers and some managers carry a greater impact on the achievement of agency goals than do those of other staff in the same agencies.

It is also recognized that in most, if not all, agencies present allocations of power and authority limit the degree of managerial control over resources and thus constrain the decision-making options open to management in general and the manpower development staff in particular. In many agencies a substantial proportion of the operating budget is actually spent on education, training, and other manpower development activities, although the actual amount cannot readily be extracted from present cost accounting categories. Decisions relating to budget, services, personnel assignment, and other support activities play a large decision-role in determining what manpower development action and investment is needed and what is actually done. Education and training funds and plans are subject to much prescriptive decision making. That is, program and operating decisions are made in a context of other considerations but create specific demands for skills and consequently for training and education. These operating decisions are frequently made without much consideration of their impact on manpower and manpower development and thus on the entire agency operation. Often decisions by different operating managers make contradictory demands on manpower development.

Despite these limitations, however, efficient achievement of agency goals demands that manpower development programs be planned as a total agency strategy with a goal of maximizing effectiveness of *all* service delivery rather than suboptimization of manpower for specific programs or in specific operating units. An agency-wide strategy is dictated by considerations of an optimum coordination of service delivery activities, flexibility in using manpower to meet client service needs, satisfaction of worker needs and worker career mobility. Effective implementation of an agency-wide strategy should have a long-range benefit in the identification of core skills required by the agency's work and the development of adequate and relevant training and education.

The Goals of an Agency Manpower Development Program Are Multiple

In addition to the complications for manpower development planning posed by multiple and disparate subsystem goals and the absence of an opening for a direct impact on some subsystems, manpower development programs must adapt to opportunities and constraints on goals and activities that are determined by the unique *human* characteristics of human system components.

The basic purpose of agency manpower development is service delivery. The ultimate criterion for effectiveness of manpower development action and investment is the efficiency and effectiveness of the service delivery system in achieving service goals and purpose. However, since system components are human beings operating as systems and as subsystems in non-agency situations, career mobility, worker opportunity, and worker satisfaction must also be regarded as important goals. Therefore, the basic strategy proposed in this paper is a "mini-max" strategy: to maximize worker career goals while achieving a minimum of mismatch between worker skills and work that needs to get done.

It should be noted for the reader who is familiar with concepts in economics that this frame of reference is a rejection of a rigid "human capital" concept of manpower and the appropriateness and usefulness of the capital investment theory as the only analytic frame for the evaluation of manpower development. The human-capital, investment-economics framework has proved singularly resistant to providing viable solutions to problems of program-oriented manpower development activities. There seem to be several reasons for this lack of fit. Use of capital and investment theory seems to be based on the assumption of considerable similarity in the units of a given class, and conventional analysis of manpower investment treats occupations as a class of outputs. However, when we see the work performed on a day-to-day basis by two social workers, we see a striking difference. Social worker "A" is helping residents of a slum neighborhood organize to secure enforcement of the housing code; social worker "B" is helping the parents of an abused child master their feelings of anger so their child will be safe in their care; social worker "C" is supervising a staff of six homemakers; and social worker "D" is writing a training manual for use in training welfare aides.

Capital theory seems also to be based on assumptions of more or less long-range durability of the units produced, so that their utility decreases only because of wear or technological obsolescence. Use of equipment and facilities, in general, decreases their usefulness and life expectancy. In contrast, use sharpens skills and improves performance and utility. The nature of the worker's original training and his use or nonuse of skills are not the only issues to be considered in maintaining a match between skills and work-to-be-done. When we examine the kinds of activities which go on in program-oriented training, we see that much of it is not producing a "whole new worker" but rather is putting the "finishing touches" on a worker so that he can perform in a specific position. These finishing touches may have to be repeated when the employer's program changes or the worker changes jobs. Thus the utility of specific training depends in large part on the nature and direction of program changes and the application of new knowledge.

Substitution of a "systems human components" concept of manpower for a traditional economic investment model does promise usefulness for manpower program design to serve social goals as well as to serve specific program goals. However, it requires the development and use of new concepts as analytic frames—concepts which account for the complex interrelationship among purposes, goals, procedures, and workers. At their present stage of development the concepts and related analytic tools do not provide us with as neat and elegant an analysis as we would like. It is believed, however, that the greater usefulness of the "systems human components" concept in facilitating improved services and more effective manpower development will outweigh the problems presented.*

The Criterion of Success Is Match between Skills and Work Requirements

The basic criterion for success of a service-delivery-oriented manpower program is a continuous and optimum match between particularized skills available and the particularized requirements of work to be done to achieve service delivery goals. In the present state of social and rehabilitation services, maintaining a match between available skills and work requirements must be done under conditions of rapidly changing technology, frequent changes in programs and procedures, accelerating career aspiration of workers, emergence of new occupational types, and a marked shift from a monistic professional-authority orientation.

Therefore the basic image is one of manpower *development* rather than manpower production. A given educational or training experience may achieve an immediate match between that worker's skills and the particularized requirements of a specific job in a specific agency at one point in time. Maintaining this match as the knowledge base changes and as system requirements change necessitates ongoing, either intermittent or continuous, skill development. It is recognized that some—perhaps, on occasions, even much—of the required skill development occurs rather naturally as a result of adaptation to everyday work requirements and from the informal, often incidental instruction and example of co-workers and supervisors. It is posited, however, that efficient achievement of both service delivery system goals and goals of worker wellbeing under conditions of change require the inclusion of continued skill development as a purposive formal activity in manpower development.

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*See Neil W. Chamberlain, "Some Second Thoughts on the Concept of Human Capital" in Industrial Relations Research Association *Proceedings, 1961*, and "Some Further Thoughts on the Concepts of Human Capital," a paper presented at the North American Conference on Cost-Benefit Analysis of Manpower Policies in Madison, Wisconsin, May 15, 1969. See also E. Wight Bakke, *The Mission of Manpower Policy*, Washington: The Upjohn Institute for Employment Research, 1969.

Changing Technology and Development of New Knowledge Require Continuing Education and Training

Improvement in service delivery and increase in effectiveness of services can occur only if manpower development activities provide a means for efficient and effective translation of new knowledge into administration and practice. Innovations and experimentations in agency practice as well as research add a flood of new knowledge which can be used to improve agency performance. Capturing the benefits of research and innovation requires a coordinated and careful planning of information, communication, and research utilization activities if personnel skills are not to lag behind knowledge development. Thus, if new knowledge and technological developments are to be translated into improved services, they must be regarded as carrying a "training overhead." This may prove to be a substantial problem for those agencies whose interaction with the "knowledge industry" is incidental and fortuitous.

Changes in Service Delivery and New Knowledge Developments Demand Organizational Adaptations with Implications for Manpower Development

Effective response of the service delivery system to (1) demands for improved quality and increased quantity of services and (2) a changing knowledge base compel organizational and institutional change with resulting implications for manpower. These changes can be seen in many different aspects of an agency and its work.

Broadening of the occupational base and the redesign of jobs has created and is creating new job types. Much current concern is focused on entry-level jobs requiring less than a high school education. Special problems in both general education and skill training must be met if these "new career" jobs are not to be dead-end and frustrating to workers or to result in decreased quality or higher cost of services. Restructuring of jobs will be required if career pathways are to lead to more than token occupational or income mobility. Current developments indicate a trend both to increased personnel specialization on the one hand and the emergence of new "generalist" roles on the other. Both trends pose education and training problems if services are to be effectively managed and delivered.

Considerations of efficiency, economy of scale, maintenance of service quality, and effective use of less well-educated personnel all point to a need to buttress and coordinate manpower development with the development of procedures, prescribed work routines, system design, etc. It should be noted that, although changes in procedures, program, policy, and work routines in the long run produce operating benefits, in the short run they carry an orientation or skill-training overhead. Effective system design and program planning will be frustrated by inadequate planning and investment in the consequent orientation and skill development. Many potentially effective changes in service system design will require workers from different occupations if they are to be implemented effectively. Sometimes the creation of new occupations or new specialties is necessary.

Social and Rehabilitation Agencies Are Primarily Consumers of Education, Not Producers

From the standpoint of preparation for work in a field with a complex and changing knowledge base, the goals of the general educational system and those of program-oriented education and training are discrepant. The general educational system aims at extending general application while program-oriented education focuses on specific relevant skills. The proposed categories of manpower development activities are based on the needs of the service delivery system for particularized skills.

Agency personnel management and workers' job options are served by credentialed learning experiences; that is, learning for which a credential such as a degree, a diploma, or certificate is given. Credentials serve to create a more or less reasonable expectation of skill, so that selection, placement, and assignment decisions are facilitated. Thus, program interests, as well as worker interests, are best served by credentialed education provided by educational institutions but designed to be relevant to the skill needs of operating agencies.

It is further assumed that general education is fundamentally the responsibility of the general public, and support must come primarily from educational funds. However, agencies are often faced with a problem of present or prospective employees with general educational preparation that is inadequate either for specific tasks or as a basis for learning new skills. It is realistic therefore to recognize a need for an agency training investment in supplemental and remedial basic adult education as needed to facilitate specialized skill training and to remove barriers to employment of the disadvantaged when such barriers cannot be removed through the use of other resources and when such employment forwards agency goals. General educational support for extending functional and adaptive skills of all levels of personnel is indicated when to do so is in the interest of improving operation of the service delivery system.

It should be noted here that traditional concepts of general or basic education and specialized skill and vocational preparation need rethinking. The traditional two-step concept of all general or basic education coming first and vocational preparation second is not adequate for current needs. In a world with a complex technology the thread of basic education seems to run through and precede specialized skill training at all levels, so that in effect what is specialized skill at one level becomes basic preparation for more advanced learning.

SOME SUGGESTED CATEGORIES FOR MANPOWER DEVELOPMENT ACTIVITIES

The above premises suggest the heuristic value of planning and evaluating manpower development activities and investment around critical system-demand requirements as the primary dimensions. Different system needs are served by different types of training and education. Different benefits are achieved. Different evaluation strategies are appropriate. Within the system-demand framework, analysis of manpower development needs in terms (1) of specific service activities, (2) of occupational types, (3) of specific skills required by particular service delivery needs, and (4) by structural attributes such as position in the organization, etc., will be useful in planning and evaluating manpower development strategy and investment.

The following major categories of manpower development activities and investment are being suggested:*

Type of Training/Education (Major Educational Goal or Purpose)

1. Orientation to Agency and Program - information specific to time and place, rules, regulations, operating procedures, organization's expectations, etc.
2. Specific Skills and Content Training - short-term specific skill or content ("part" of a job).
3. Vocational Preparation - basic preparation for specific job types or occupations. Ranges from basic preparation for entry-level jobs through preparation for professions.
4. General Education - preparation in functional skills, adaptive skills, and generalized content.

System-Determined Occasions Requiring Training/Education Investment

A. In life cycle of worker

when he enters employment

when he transfers to a new position

when he is assigned new duties within position (other than general program changes affecting all workers)

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*See Table 1 for some implications of the interaction between occasion for training and the type of training given.

Table 1.–Interaction Between Occasion For Training and Type of Training

(Some determinants of frequency of need for specific type/occasion training by direct service workers)

Occasion for training/education	Type of training/education activity			
	Orientation	Specific skill and content (part of a job)	Vocational preparation	General education
1) When worker enters employment	Always needed.	Frequently needed, depending on specificity and relevance of vocational preparation.	Almost always needed for specialist roles. Preparation for generalist roles not so neatly packaged.	Remedial adult basic education usually needed for disadvantaged persons. May be needed by less disadvantaged persons when adaptive and functional demands are high. May be needed less often if methods of training in adaptive and functional skills independent of specific content are developed.
2) When worker transfers to new position	At least a small amount almost always needed, more if new position is very different from old.	Sometimes needed, depending on breadth of vocational preparation, general education, and opportunity for on-the-job learning (very narrow, specific technical vocational preparation may limit receptivity to new skill demands).	Depends on "linkage" between old and new position.	Frequently, if worker career mobility is goal.
3) When worker is assigned new duties within position	At least a small amount almost always needed, more if new position is very different from old.	Sometimes needed, depending on breadth of vocational preparation, general education and opportunity for on-the-job learning.	Usually not (if knowledge base changes enough to characterize training as vocational preparation it would be a new position).	Frequently, if worker career mobility is goal.
4) When policy, procedures, program are changed	Always needed either as training or self-study and depending on sophistication of worker.	Sometimes, depending on whether change involves new knowledge base or new technology.	Sometimes, when change involves new technology, redesign of jobs, or new occupation.	Usually not unless restructuring of jobs or new occupations are involved or if needed to increase adaptive skills to improve receptivity to change.
5) When new knowledge, technological developments must be introduced	Usually not.	Frequently when knowledge is growing rapidly and pressure for system adaptations are strong and if goal is change to improve system performance.	Sometimes, when knowledge growth is extensive and/or new job types are developed.	Frequently needed to facilitate change. Development of adaptive and functional skills in general education at all levels probably facilitates introduction of new knowledge and effective incorporation of new knowledge in daily work.
6) When reinforcement is needed to maintain or restore performance	May be frequently needed if other feedback mechanisms for monitoring performance are absent or ineffective.	Sometimes, or perhaps frequently, depending on nature of skill or content involved and the presence of other reinforcers or counter-pressures leading to skill deterioration or loss of relevant content (most critical in human services when some negative feedback and conflicting feedback is almost always present).	Usually not.	Sometimes, perhaps frequently, needed to help worker resist constricting pressures.

B. In the life cycle of the system

when policy, procedures, or program are changed

when new knowledge and technological developments must be introduced to update skills and raise performance standards

when reinforcement is needed to maintain or restore performance standards, skills conservation, refresher, practice

Different types of service programs with different mandates, administrative goals, and policies have divergent interests in the different types of training/education activities. Public child welfare, vocational rehabilitation, and public assistance programs, for example, because they are focused on the total operations of a given State and local agency, must be concerned about all types of education/training. Other programs may be focused on target populations, with a resulting limit on the kinds of training needed. For example, certain manpower development programs for workers in mental retardation, in juvenile delinquency, and with the aged are concerned with achieving specific short-term education/training goals for workers who have had basic vocational preparation but not the specialized knowledge needed to perform work that serves particular target populations. These specialized programs are, therefore, concerned with questions of critical import vis-a-vis given populations and are not directly focused on total system needs for education/training. It is a merger of the different centers of interest into agency-wide manpower development strategy that promises a payoff in better service delivery system operations.

A PROPOSAL FOR PLANNING

The present outline of a proposal for a program planning structure for agency manpower development activities is based on an analysis of the function of specific types of training and educational activities in the operation of service delivery systems. Since this is a hypothetical analysis for illustration only, no estimates of need or of actual costs are included. It should be noted, however, for the reader who wishes to attempt an analysis, that in most agencies almost no data exist to provide a reasonable basis for estimates of either need or cost. A serious effort at manpower development planning forces development of research statistics and management information systems. The design of most current program planning structures and fragmentation of existing data make the coordination of information and development of consistent assumptions as a basis for forecasting staff requirements and manpower development needs a task of formidable proportions. If manpower needs are seen as being derived from service delivery system needs, coordination of assumptions on service-program dimensions is a precursor necessity. If the logic of the present proposal is persuasive, staff time should be allocated to work out as reasonable a base of acceptable assumptions as possible with present data. Sufficient staff should be assigned to study service operations, research, statistics, and management-information ramifications of the present proposal. If adaptation and implementation of the present proposal is contemplated, sufficient staff (sufficient in numbers and skills) must be assigned not only to the planning activity but also to the research and statistical activity that will be required (1) to provide reasonable estimates of needs, (2) to study benefits, and (3) to provide a knowledge base for program refinement.

For the purposes of illustration, the following is a brief *hypothetical* analysis of projected costs of training programs with a goal of orientation to agency and program. Assumed is a complement of new workers in a national network of agencies based on relatively conservative assumptions of current practice and turnover in public agencies.

1. Estimated total number of employees at beginning of year 1971	170,000
a. Assume 39% will be accessions (new hires) during year.	
2. Total number of new workers hired	66,300
b. Assume 5-day formal, group, off-the-job orientation for each new worker.	
3. Total number of days off-the-job orientation	331,500
c. Assume $30 per day off-the-job orientation costs with travel and per diem and $20 per day without travel. Assume 2/3 of all orientees receive orientation in city of residence and 1/3 must travel to other city for orientation and thus need travel and per diem. (Assumed costs per day are based on an informal report of costs of interagency training for HEW employees reported by the U.S. Civil Service Commission. Actual travel and per diem will be higher for many agencies because greater distances will be involved.) Assumed average daily salary rate is $25 per orientee ($5500 annually prorated over 220 working days). Twenty percent indirect costs on orientees' salary are allowed, which is $5 per day of salary. (Actual indirect costs will be higher for many agencies.)	
4. Salary of orientees during off-the-job orientation	$8,287,500
5. Indirect (overhead) costs on orientees' salary	1,657,500

6.	Training costs for the 1/3 of all orientation days given out of town and requiring per diem and travel	$3,315,000
7.	Training costs for the 2/3 of all orientation days given in ne town and therefore not requiring travel and per diem	4,420,000
8.	Total costs off-the-job orientation	$17,680,000

d. Assume that 1/2 of new hires are in job assignments in which average productivity level is reached after 1 week on-the-job and therefore that 1/5 of first week (1 day) may be charged to on-the-job orientation. Assume that 1/2 of new hires are in job assignments in which average productivity is reached after 3 months (60 days) and, therefore, that on the average 1/5 of the first three months (12 [illegible]) may be charged to on-the-job orientation. Assume salary and overhead costs as for off-the-job orientation.

9.	1/2 of new hires (33,150) x 1 day	33,150 days
10.	Total number of days chargeable to on-the-job orientation	430,950 days
11.	Salary of new workers chargeable to on-the-job orientation	$10,773,750
12.	Overhead on orientees' salary	2,154,750

h. Assume on-the-job supervisors' salary is $40 per day (430,950 days). Assume a 20% overhead charge against supervisors' salary.

13.	Supervisors' salary chargeable to orientation	17,238,000
14.	Supervisors' overhead chargeable to orientation	3,447,600
15.	Total cost of on-the-job orientation	33,614,100
16.	Total investment in orientation of assumed new workers hired by agencies	51,294,100

The potential for further analyses is immediately obvious. If for example, half of all new workers hired (33,150) are direct-service workers, the question of specific vocational preparation for service delivery becomes relevant. For simplicity of analysis, let us assume that one-third of all direct-service workers hired have specific vocational preparation and except for the orientation estimated above need no further skill training after entering on duty. Let us then assume that the remaining two-thirds of direct-service workers (22,100) hired will require some specific skill training. Let us further assume that such training will be purchased from training and educational institutions at a cost of $35 per day of training. (This is the average cost informally estimated by the U.S. Civil Service Commission for short-term (less than 120 days) training supplied by non-government sources to Federal employees.) Suppose the time required to reach a minimum level of skill averaged 20 days of intensive training. The training cost plus trainees' salary and overhead on trainees' salary for special skill training of 2/3 direct-service workers estimated to be hired during the year and requiring special skill training will amount to $28,730,000.

The above analyses are based on a selection of the most conservative among fragmentary data from selected agencies and are included merely to indicate the kind of information that must be generated if the present proposal is to be put on a firm base. It should be emphasized that only a part of costs reasonably attributable to manpower development has been captured even hypothetically in this analysis. However, a rough idea can be gathered of the kinds of analyses that are possible and useful for decision making if data are generated to permit analysis of some of the issues outlined below.

SOME ISSUES IN MANPOWER DEVELOPMENT PROGRAM PLANNING AND EVALUATION

If attention and resources are to be focused on increasing effectiveness of manpower development activities, knowledge is needed to provide illumination for several issues that should be considered in choosing between alternatives in strategy and investments. The following issues have differential meaning and importance for national agencies and associations and for State and local operating agencies. They are fundamental issues that do impact on all agencies and need to be resolved at some point in the future if effective and efficient manpower development is to be achieved.

1. *The relative costs/benefits of specialized training vs. general education.* A high degree of specialization seems to result in high efficiency in specific work performance accompanied by a fractionization of the total job or person. Communication, interpersonal, and organizational problems seem to increase with specialization and diversification. Within the context of specialization it is possible to ask how well a job is being done but very hard to ask if what *is* being done is what *should be* done. Analyses in terms of social and agency system functioning are needed as well as analysis of impact on workers' careers.
2. *The benefit as well as the cost implications of different relationships between work and learning.* Work and learning can be sequential or concurrent. Work itself can be learning. The relevance of learning abstracted from work; the impact of different work/learn patterns on

"motivation," the efficiency of group instructions vs. the "reality" of on-the-job training and experience—all are questions that need to be explored in terms of specific types of workers and particular kinds of skills.

3. *The cost/benefit ratio of system-design alternatives vs. simply increasing manpower investment and maintaining a constant system.* For example, if the goal of a hospital is saving lives, investment in an intensive care unit almost certainly results in more lives saved than would the same level of investment in any mix of training for hospital manpower without the intensive care unit.
4. *The implication of different service delivery strategies and service technologies on skill needs as well as on the requirement for different vocational preparation.* Different strategies and different technologies may involve different occupational bases.
5. *The cost/benefit implications of investment in innovation and development of new education and training technology vs. investment in traditional methods.* This would include exploration of closed circuit TV, tele-lecture, responsive environments, etc.
6. *The relation between specific worker behavior and achievement of desired service goals.* We need to make substantive knowledge advances in identifying the specific skill requirements of particular tasks, jobs, agency service delivery system characteristics, etc.
7. *The identification and measurement of possible benefits.* We must differentiate benefits to the service delivery system from benefits to workers and develop appropriate measures for each. Benefits measurable in dollar values must be differentiated from benefits measurable by other scales.
8. *Impact of the knowledge and information gap on effectiveness of manpower development planning.* Agencies need to explore the implications for planning staff time and skills and for research investment of alternative strategies in manpower development to meet required changes in service delivery.

SOME SPECIFIC RESEARCH NEEDS

Needless to say, an adequate data base for analysis of the above issues does not exist at the present time. Present alternative choices must be based on fragmentary evidence. If any of the issues in making a choice among alternatives are to be studied responsibly, a substantial long-term increase in research and statistical activities is necessary. Extensive experimental tests of proposed training and manpower development models will not be an effective investment without extensive knowledge building in underlying concepts. Some research problems are:

1. *Need to develop methods of identifying costs attributable to manpower development under different conditions.* Total cost must be differentiated from costs to specific programs and program authorities. The biggest problem is capturing *all* relevant costs, direct and indirect. When the total cost for any kind of training or education is not paid by specific program funds, the problems of obtaining residual financing impact on the effectiveness of the specific program investment. In other words, the need to "pull funds" must be taken into account in estimating the potential effectiveness of any partially financed program. With present available data all manpower development costs actually paid by agency funds frequently cannot be captured. Therefore, analysis is severely limited. For example, if trade-offs between off-the-job inservice or on-the-job skill training and educational leave are to be made, support of the trainee (salary stipend, etc.) must be included as a part of inservice and on-the-job training costs. In many agencies, salary costs of trainee workers are lost in service program budget items.
2. *Need to develop measures of benefits to the worker as well as benefits to the service delivery system of a match or a mismatch between particularized skill and the work output required by the system.* For example, how much of present costly high turnover rates is attributable to such a mismatch? How much of present "service failure" is attributable to such a mismatch?
3. *Need to develop measures of impact of different manpower development strategies on agency organization and structure.* Different manpower development and personnel strategies can be expected to have differential impact on worker satisfaction and thus on worker performance and turnover.
4. *Need to identify worker characteristics in sufficient detail that an estimate of skill requirements can be made with some reliability.*
5. *Need for better data on the effectiveness of particular vocational preparation in assuring specific skills.*

For many agencies an initial attempt to analyze manpower development investment along proposed lines encounters several difficulties:

- A pervasive scarcity of relevant data (both need and cost data) seems universal.

- An absence of a coordinated set of expectations for service program structure handicaps individual managers in estimating manpower need within their own programs as well as hindering the integration of estimates for combined agency-wide program.
- The need to coordinate specific decisions on manpower planning assumptions and estimates with relevant program decision makers makes it difficult to arrive at an agency-wide plan within a reasonably short time.

Usual experience in attempting estimates highlights the need for technical assistance to program staff to achieve a common basis of assumptions, a dependable data base, and a coordinated approach for agency-wide manpower planning.

However, some benefits are usually realized from the planning and estimating process itself. When it is reasonably planned and responsibly carried out, program staff frequently report that their forced examination of estimated needs and costs for reasonableness of assumptions, consistency with service programs, and manpower program expectations have resulted in information and insights that are immediately useful in decision making. Rough estimates and even crude data reported in the proposed framework show clearly to both program and planning staff the analytic power of the proposed categories. Initial agency experience with manpower development need analysis likewise clearly reveals the investment of time and skill that is required to achieve acceptable results.

If the proposed approach and discussion of issues is persuasive, a reasonable target date for a specific plan and discussion of alternatives based on existing fragmentary data should be set sufficiently far ahead so that adequate time can be allocated for the planning staff to assemble all relevant data and discuss implications and issues with program staff in order to arrive at a coordinated set of expectations. Statistical and research needs will be quickly identified. Planning for a "hard data" base in the future will require thought about an adequate operating information system and systematic linkage with research outside the agency to take full advantage of new knowledge wherever it is being developed. Larger agencies may wish to carry out research, and all agencies may wish to work with local universities and research organizations to promote the kind of research they see as needed.

It is recommended that, if the proposed approach is seen as a desired goal, planning staff should scout all relevant data, develop plans in cooperation with specific program decision makers, and identify and develop required research and statistical systems needed for analysis of needs, costs, and benefits of agency manpower development activities.

IMPACT OF FACTORS OF ORGANIZATIONAL CLIMATE AND STRUCTURE ON SOCIAL WELFARE AND REHABILITATION WORKERS AND WORK PERFORMANCE

Scope of Work from Request for Proposal

by

Social and Rehabilitation Service

Research Proposal

by

Eugene Litwak and Jack Rothman

Manpower Science Services, Inc.

46/47

Summary of "Scope of Work" from Request For Proposal Issued by SRS

1. This is a request for a proposal to perform the work of conceptual development, based on existing research and theory, concerning the impact of organizational climate, functions, and structure on social welfare and rehabilitation workers and their job performance. The conceptual development must lead to a methodology for data collection through which the relationships among organizational factors, workers, and role functioning of social welfare and rehabilitation workers may be empirically determined. A limited field investigation of variables suggested by the conceptual development to determine their appropriateness and feasibility of measurement is included.

2. There are various alternative systems or sets of dimensions which may be used to characterize organizations. Some of the commonly used dimensions are: centralization/decentralization of decision making; height/breadth ratio; verticality/horizontality of communications; generalization vs. specialization of functions; implicit vs. explicit performance standards; goal oriented/process oriented; professional/bureaucratic, etc. Needed are sets of dimensions which characterize social welfare and rehabilitation agencies and which account for different impacts of organizations on workers and work performance.

3. Generic sociological and organizational analysis indicates that there are complex relationships between the work to be done by and within an organization and the structure and climate of the organization. In order to produce knowledge which may be useful for affecting changes in the social welfare and rehabilitation field, concepts in organizational analysis must be specifically applied to this field, and the relationships which obtain therein must be specifically measured and identified. The purpose of the work to be done by the contractor is to identify sets of variables which are likely to yield meaningful interrelationships in the social and rehabilitation field, such that the organizational contexts of social welfare and rehabilitation work and their impacts on workers and worker roles may be adequately characterized. The adequacy of this characterization will be in terms of the extent to which it accounts for useful proportions of variance and the extent to which it provides knowledge which may be used for the further development or modification of jobs; design of work units and subsystems; education, training, and recruitment of workers; task structuring; and the organization of service delivery systems. The contractor is to provide a limited field demonstration of the adequacy of his conceptual scheme from these points of view, and in terms of the ability of the scheme to be operationalized such that the relevant variables may be measured in a National Study.

PHASE I

1. The contractor shall identify and make an extensive review of literature on research, theory, and practical experience as necessary to identify and integrate major ideas and findings relevant to the study and as needed to generate the conceptual framework specified below. This review shall include but is not limited to, literature pertaining to social services, health care education, industrial psychology, organizational theory, and occupational sociology. The contractor shall integrate the findings and concepts emerging from the review and shall develop a conceptual framework for studying the impact of organizational climate and structure on workers and work performance in public and private social welfare and rehabilitation agencies.

2. The conceptual framework must consider:

   a. The critical dimensions of organizational climate and structure which characterize public and private social welfare and rehabilitation agencies.
   b. The relationships between organizational variables and variables associated with mission and work performed by the organization and characteristics of workers in the organization.
   c. The relationships between organizational variables and worker utilization and mobility; job structure and assignment; design and structure of subsystem units; orientation of work tasks and organizational goals; performance standards and evaluations; inter- and intra-organizational linkage and coordinating mechanisms; location and operation of quality control mechanisms; recruitment; job tenure; and career ladders.

3. The conceptual framework developed:

   a. Must specify, organize, and allocate variables in a meaningful way.
   b. Must capture the realities of social welfare and rehabilitation organizations, workers, work, work settings, and management.
   c. Must lead to specification of dimensions and relationships that are amenable to empirical study.
   d. Must be comprehensive in terms of accounting for significant proportions of variance.
   e. Must be productive of knowledge concerning the relationships among organizational factors, the work to be done by and within the organization and the manpower performing that work.

f. Must be useful in suggesting manipulable variables which, when intervening in existing relationships, may come to effect changes in the field. These criteria imply that the contractor will be able to identify desirable methods for measuring the required variables.

g. Must have the capability of generating knowledge which may be used for further research and have implications for policy recommendations with respect to recruitment, training and education, work assignments, and service programs.

h. Must define a set of dimensions which meet these criteria and enable reseachers to set the parameters for sampling agencies to be included in the national survey, such that the sample selected will consist of the smallest number of agencies capable of capturing the range of positions on the relevant organizational dimensions.

4. The contractor shall plan and conduct a limited field investigation designed to supplement and extend the concepts derived from the review of the literature and to provide indications of the relevance of the variables he has chosen and the extent to which the patterns and relationships among his variables can be identified in various social welfare and rehabilitation settings. The contractor shall determine the practicality of (a) relevant research for use in the proposed national survey and (b) more intensive research in the various areas, and shall identify problems in further research. The determination of practicality shall take into account the feasibility of measurement of the different variables. Feasibility is defined here in terms of the ability to construct operational measures of the variables within a reasonable time and cost framework. The field investigation should be conducted concurrently with, and be an integral part of, the conceptual development work.

Based on his knowledge of organizational theory, research methods, measurement and social welfare and rehabilitation services and organizations, the contractor shall specify the number and types of organizations (public and private social welfare and rehabilitation service delivery, policy, and planning organizations) which he thinks will need to be included to fulfill the scope of work.

Thus, the contractor should present and justify on the basis of his present knowledge of existing research, sets of dimensions capable of and likely to lead to empirically determined interrelationships. He is to suggest the nature of the specific variables which will comprise measures of the dimensions presented, and to indicate a methodology for operationalizing those variables and conducting the research.

IMPACT OF FACTORS OF ORGANIZATIONAL CLIMATE AND STRUCTURE ON SOCIAL WELFARE AND REHABILITATION WORKERS AND WORK PERFORMANCE

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IMPACT OF FACTORS OF ORGANIZATIONAL CLIMATE AND STRUCTURE ON SOCIAL WELFARE AND REHABILITATION WORKERS AND WORK PERFORMANCE

Eugene Litwak and Jack Rothman*

INTRODUCTION

This proposal is concerned with the relationship of organizational variables to the performance of social welfare and rehabilitation agencies and practitioners. We will suggest a range of organizational variables to examine and offer an initial theoretical perspective by means of which to organize and select variables which may be most significant or powerful in affecting service outcomes.

The proposal covers three phases:

1. Development of the conceptual framework and measuring tools;
2. Technical assistance to Social and Rehabilitation Service (SRS) in incorporating the results of the first stage into the design of the projected National Study; and
3. Extensive field study to gather data in a cross-section of social welfare and rehabilitation agencies, utilizing a more refined conceptual framework evolved in the first phase.

In Phase I of this effort we propose to review the literature systematically and to engage in some exploratory field work in order to delineate the dimensions of organizational structure which might be important in affecting the work of social welfare and rehabilitation workers.

THEORETICAL APPROACHES TO ORGANIZATIONAL ANALYSIS

The initial theoretical framework we will use includes two general avenues of investigation which appear fruitful for the analysis of social welfare and rehabilitation agencies: (1) internal structure, emphasizing a multimodel conception of organizational behavior; and (2) linkage theory, concerned with how organizations deal with units in their environments, especially clients and other agencies. Linkage theory offers a useful conceptual tool for analyzing service delivery problems.

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INTERNAL STRUCTURE ANALYSIS

Single Model Approach

There have been two basic approaches to the study of the effects of organizational structure on the work situation. The first may be called a "single model" theory of organizational structure. It assumes that there is one ideal organizational structure which is optimal for all tasks undertaken by formal organizations. Several such ideal models have been selected, each one implying a conceptual dimension along which organizations can be arrayed, with the various positions along the dimensions hypothesized to be related to specific effects on the work to be done by the organization.

One of the earliest of such single model theories is that which Weber called the monocratic model (Weber, 1947), but also referred to as a rationalistic or a rules-oriented model. Though investigators have used different languages in discussing this model and differentially stress various aspects of it, they are all responding to the same basic set of dimensions or variables. Following Weber's formulations, these dimensions may be described as: (1) appointment and promotion by merit; (2) delimited specialization of work roles; (3) specified rules for carrying out organizational functions; (4) hierarchical authority; (5) impersonal relations among organizational members; (6) a priori specification of duties and tasks; (7) separation of administrative and policy decisions; and (8) requirement that personnel be full-time employees of the organization.

These various elements or characteristics were said to provide the most effective form of organizational structure because they presumably concentrate the maximum amount of knowledge and resources on the tasks which the organization must perform. Thus the demand for appointment and promotion on merit functions to assure that the most knowledgeable persons are being hired to perform the work. The stress on specialization assures that workers have maximum experience regarding the tasks they perform and thus are able to handle them most propitiously. The use of rules assures speedy and consistent coordination between people and task segments so that the right person is at the right job at the right time. When rules are insufficient to achieve coordination, the hierarchical authority assures that consistent and informed decisions will permeate the entire organization.

The impersonality of staff relations and a priori delimitation of duties and rights decrease the chances for personnel to substitute their own personal goals for those of the organization. Thus formal relations limit the ability of interpersonal likes and dislikes to intrude on task functions. They also limit the power of the superordinate and prevent forcing subordinates to work on his private projects as the price of getting ahead in the organization.

The separation of policy and administrative decisions permits the rapid introduction of policy changes without requiring the discharge of all the organizational members and a new cycle of recruitment and training of new staff.

This model of organizational milieu was pervasive in most kinds of organizations through the 1940's. In the world of business it ultimately manifested itself in scientific management and management by objectives, which especially concern themselves with certain components of the monocratic model, e.g., hierarchy, specialization, and span of control. In hospitals and schools there was concentration on staff-centered, professionalized, rule-oriented bureaucracies, while in prisons there was emphasis on custodial regimes.

A series of pioneering studies in the field of business in the 1930's and 1940's began to question the efficacy of this model and led to the creation of an alternative single model formulation. Mayo and his colleagues began to demonstrate in a series of studies that positive affect and peer group solidarity were extremely important dimensions in business productivity (Roethlisberger and Dickson, 1939; Bendix and Fisher, 1964). Somewhat independently, the work of Lewin and his co-workers in group dynamics suggested that collegial decisions might be more productive than hierarchical ones (Coch and French, 1953). Other studies of the American and German armies during World War II suggested that peer group decision making and solidarity were important to military effectiveness (Shils and Janowitz, 1954). Given that an army is the quintessence of the classical model of a rationalistic, formal bureaucratic structure, these studies were highly significant and damaging to the model.

During the 1950's and 1960's a series of studies in hospitals and prisons suggested the validity of a therapeutic patient-centered approach (Hamburg, 1957; Zald, 1965; Street, Perrow, and Vinter, 1966). These studies further implied a move away from hierarchical structure and intense specialization by placing more emphasis on positive affect and generalist work roles.

At the same time, school systems began to show increasing concern for a pupil-centered approach which included curriculum designs capable of matching individual children's needs. Unlike some of the other kinds of organizations mentioned, schools had already gone through a number of transformations in educational philosophy. While these transformations were not often translated into organizational terms, they were in fact associated with structural changes (Litwak and Meyer, 1965). The progressive approach of John Dewey and later pupil-centered and open-classroom developments demanded collegial, decentralized administrative systems in order to function well, whereas the earlier standardized subject matter content emphases could be managed through rationalistic bureaucracies.

The kind of organizational structure implied by these developments is a more open one. It has been given various names—human relations, therapeutic, treatment-oriented, goal-oriented, democratic, participatory, and others. Despite differences in labels, there is a core of structural features which differentiates these organizations from those described by the older rationalistic model: (1) general specialist rather than detailed specialist; (2) committee meetings rather than rules; (3) collegial rather than hierarchical relations; (4) positive affect rather than impersonal relations; (5) general specification of duties and privileges rather than precisely defined statements; and (6) merger of policy and administrative decisions rather than separation. They also leave open the possibility of including within their administrative staffs people who are not full-time or professionalized employees, such as patients, students, indigenous nonprofessionals, etc. In our previous work in the area of organizational analysis, we have referred to this kind of structure as a human relations type of organization. The point to be made here is that this model identifies alternate poles of dimensions or variables which are anchored at the other end in the rationalistic model, thus expanding the list of constructs by which organizations can be described and analyzed.

Multimodel Approach

The multimodel approach is a more recent development. The human relations model blossomed in the mid-1960's, and the bulk of organizational theorists still view it as the ideal alternative to the Weber model. However, since the mid-1960's a series of studies has suggested that the human relations model is not, by itself, adequate to account for the ways in which organizations structure themselves (Whyte, 1964; Perrow, 1967; Thompson, 1967). Consequently, some theorists have searched for a new single model of organizational behavior which will be applicable to all problems with which organizations deal. Others have branched off and suggested that there may be multiple models of organizational behavior, depending on the kinds of problems with which organizations deal, in effect adding a classification of problems as another set of variables necessary for describing and analyzing organizational structure. These "multiple model" theorists do not abandon the practitioner to uncertainty and confusion; rather, they suggest that within their conceptual frameworks there may be a set of rules for relating organizational variables to specific organizational tasks. Once one arrives at the position that different organizational tasks demand different kinds of organizational structures, then the classification of tasks and the linkage of structure with function become important conceptual and empirical problems.

One group of theorists have proceeded by taking as their major focus the degree of uncertainty about organizational tasks. They have given this uncertainty different names, and they have often treated different dimensions of uncertainty. But their work has an important commonality because of the emphasis on task variability or unpredictability (Litwak, 1961; Perrow, 1967; Thompson, 1967; Lawrence and Lorsch, 1967). In brief, these theorists suggest that the more uncertain or unpredictable the task, the more effective are elements of the human relations model, while the more certain the task, the more effective is a rationalistic structure for the organization.

These writers also speak of organizations with multiple tasks, each requiring a somewhat different structure. As a result of investigating ways in which organizations operate with two or more different substructures based on different principles, these theorists have developed a conceptual scheme which includes a variety of types of organizational structure. However, because these various types are evolved from a limited set of underlying concepts, it is possible for the practitioner to locate his particular structure through application of the underlying dimensions.

Let us illustrate the multimodel approach in another way. This model would suggest that different modes of influence of compliance are associated with different tasks and organizational circumstances. No single mode of organizational control meets all situations. Thus they point out that organizations may gain compliance by coercion, by instrumental expediency, by utilization of reference power, or by legitimation (Etzioni, 1965). Different modes of influence may be associated with different structures, as well as with different organizational goals. This formulation differs from those previously cited in that it does not assume that the dimensions of organization (e.g., hierarchy, merit, rules, impersonality, separation of policy and administration, and specialization) vary together. For example, though instrumental forms of power are most compatible with rationalistic organizations and use of referent or legitimation power is most compatible with the human relations structure, there are organizations, such as custodial institutions, which include unique combinations of both (Etzioni, 1965).

From our point of view, it is probably an exaggeration to expect an organization's structure to be so closely linked with forms of power. However, others have pointed out that mode of influence is strongly related to the visibility of task performance, and, we suggest, to the degree of standardization of the task (Warren, 1964). The more visible the task, the more subject to monitoring, then the more the organization can utilize coercive modes of influence. The less visible the tasks, the more the organization must rely on legitimation, referent power, or internalized modes of compliance. These notions supplement the multimodel theories by suggesting additional dimensions of tasks which may be related to organizational structure and by refining the multiple ways in which organizations obtain compliance. Further, it can be shown that the more common-sense classification of organization types (e.g., democratic, laissez faire, autocratic, paternalistic) are essentially variations of the same dimensions discussed in connection with the multimodels (Litwak and Meyer, 1965). Finally, the multimodel approach generates numerous points of contact between concepts of task analysis (e.g., time span of discretion, locus of performance of evaluation, nature of performance standards), which permits an integration of analyses at several different levels. For example, use of this framework should make it possible to link studies of organizational characteristics directly with job and task analyses and with modes of control and influence, through interfacing variables common to varying levels of analysis.

Relevant Variables for Multimodel Analysis

Pugh and his associates (1969) have pursued the multimodel approach to the point of suggesting seven distinct types of formal organizations ranging from the highly rigid "full bureaucracy" to the loosely constructed "implicitly structured organizations" (finding, incidentally, only one "pure" Weberian type in a sample of 52 organizations). Through what they refer to as a "multivariant analysis of work organizations," these investigators have distinguished a wide range of organizational factors which seem to provide a useful screening backdrop for selecting variables to be examined in the proposed study. Equally important, these variables have been operationalized by Pugh's group, and measuring devices for the purposes of quantification and classification have been developed. One set of variables is considered to be strictly *structural* by these investigators, with other sets falling into the categories of *contextual, activity*, and *performance* variables. For purposes of the proposed work, all these variables may be considered to pertain to organizational climate and structure. A somewhat modified presentation of their formulation is as follows:

1. *Contextual Variables*
    a. The *origin* of the organization and its *history;* by whom or in what way the organization was established and the number or types of structural changes made in the organization over time.
    b. Type and intensity of *public control* over [illegible] organization.
    c. *Size* of the organization.
    d. The *charter* or *goals* of the organization (i.e., single vs. multiple; formal vs. operational; task vs. maintenance; direct vs. derived; custodial vs. therapeutic; short-term vs. long-term; goal transformation, displacement, succession).
    e. *Technology;* degree of automaticity of routine; interdependence or integration of task functions; and the specificity of criteria for performance evaluations.
    f. Location or number of *operating sites;* geographic centralization vs. dispersion.
    g. *Dependence* of the organization on other organizations; dependence upon a parent organization or other community organizations; type of interdependence; partial vs. total interdependence.
    h. *General environment; certain or uncertain;* organized or unorganized; friendly or hostile; clientele features.

2. *Structural Variables*
   a. Structuring of activities

      standardization
      formalization (reliance on rules)
      functional specialization, division of labor
      role specialization, job definition and codification

   b. Authority structure:

      centralization of decision making
      span of control
      procedures for advancement
      number of authority hierarchies in the organization

   c. Personnel structure

      professionalization, percentage, type and orientation of professionals
      line control of work flow, subordinate ratio, percent of workflow superordinates, formalization of role performance recording, mode of supervision;

      relative size of supportive component, percentage of clerks, percentage of non-workflow personnel, percentage of paraprofessionals, vertical span or height

   d. Informal structure

      leadership
      informal norms

3. *Activity Variables*
   a. Identification (charter, image)
   b. Perpetuation (finance, personnel services)
   c. Workflow (production, services, delivery)
   d. Control patterns (direction, motivation, communication, evaluation)
   e. Homeostasis (fusion, leadership, problem solving, legitimation)

4. *Performance Variables*
   a. Effectiveness (productivity, success rate, prestige, reputation)
   b. Adaptability - Innovativeness (new services and techniques, reward system)
   c. Morale

This listing of variables that are likely to fulfill the requirements of the multimodels described earlier poses several problems to the work envisaged in this proposal. Based on an extensive literature search, it will be necessary to select the variables most useful and appropriate for the proposed study. Review and evaluation of the various measurement strategies available for each will be required, in order to select those variables most useful *and* measurable within certain constraints, such as those posed by the state of the art of measurement, those posed by the impact of the measurement process on the organizations to be studied and on their work, and those posed by the need for adaptability to a national survey. Finally, the proposed work must develop tentative hypotheses concerning interrelationships among the variables.

ANALYSIS OF ORGANIZATIONAL LINKAGE

Associated with the progression from single to multiple models for organizational analysis has been the development of systematic analyses of the linkages between organizations and their environments. Some investigators deal with the environment in generalized terms such as heterogeneous vs. homogeneous (Thompson, 1967), competitive vs. facilitative (Miller, 1968), turbulent vs. nonturbulent (Terryberry, 1968). Discriminations may be made between an organization's relations with other formal organizations and its relations with primary groups (Litwak and Meyer, 1966; Rosengren and Lifton, 1966).

Such discriminations have clear implications for certain policy questions. One set of policy considerations has to do with the circumstances under which one organization should relate to another in order to increase the contributions of both through cooperation; this has relevance to such programs as the community action organizations developed by the Office of Economic Opportunity (OEO) and Department of Labor programs such as the Work Incentive Program and Concentrated Employment Program (Piven, 1968; Marris and Rein, 1969). Another set of policy considerations has to do with how an organization reaches into communities to clients who need their services, as well as how clients affect agencies to insure that they do the jobs they are supposed to do (Brager and Purcell, 1967). The development of community mental health centers, outreach programs, and concepts regarding indigenous workers and participation of the poor are manifestations of official efforts to develop linkages with communities and to include clients in service delivery patterns. There is relatively little social science theory in these latter areas, but there is an accumulating body of experience and writing which can be used for analytic purposes.

Organization—Community Linkages

Previous work in this area (Litwak and Meyer, 1966; Hollister, 1966; Thompson, 1967) suggests some leads which we will pursue in the proposed study. Because we are restricting our analysis to organizational components, we shall put our major emphasis on how organizational structures permit or prevent certain kinds of linkages to the outer community. Such an analysis and conceptualization should have relevance to such questions as the kinds of structures which facilitate or inhibit the effectiveness of a detached gang worker program, the kinds of probation department structures conducive to the development of a stress on community intervention, and manpower service structures which influence the extent to which manpower agencies attempt to ferret out and deal with the unique community problems of the hard-to-employ.

Analysis of the linkages between bureaucratic organizations and community primary groups centers on mutual needs for each other's help in order to achieve goals in a context of great differences in organizational atmospheres. For example, delinquency control agencies, educational institutions, and mental health agencies seek and need community resources (clients, neighborhood groups, community leaders, etc.). Nevertheless, it is clear that community groups stress positive affect and generalized rather than specialized relations (i.e., a human relations kind of organizational structure) while the bureaucracies of agencies such as those mentioned stress contractual impersonalized relations and specialized agencies and functions (i.e., a rules-oriented type of structure). When the two kinds of organizations become too closely mixed, the result is often charges of nepotism or favoritism (Kramer, 1969), while too great a distance between the two leads to charges of irrelevance, autocracy, and welfare colonialism. In other words, criteria for evaluating one type of structure are applied to the different, but linked, organization with negative consequences.

In our work we have evolved what we call a balance theory to conceptualize events such as these. Balance theory consists of some modifications and adaptations of communication theory and organizational theory (Litwak and Meyer, 1966; Litwak et al., 1970). Theoretical speculations and empirical evidence suggest that there is a range of possible matches or consistencies between organizational structure and the type of linkage it uses to relate to the community (Thompson, 1967; Hollister, 1966). We plan to pursue and develop this line of thinking in the proposed project.

Linkages between Formal Organizations

Basically, the same set of balance theory hypotheses may be applied to linkages between formal organizations. However, whereas distance between organizations is the most relevant factor in the organization-community linkages, the maintenance of autonomy of the linked organizations is the crucial feature of linkages between formal organizations (Clark, 1965; Guetzkow, 1966; Levine and White, 1961; Litwak and Hylton, 1962). Considerations of autonomy influence the types of linkages which can be developed between formal organizations. Our multifactor theory of organizational linkages (Litwak and Rothman, 1969) suggests that the effectiveness of various kinds of linkages depends on such factors as the volume of exchanges between organizations, the number of linked organizations, whether they are engaged in competitive or facilitative interdependence, whether the element to be exchanged between the organizations is highly standardized or not, and the extent to which the organizations are in symmetrical or asymmetrical power relations. For purposes of the proposed study, our concern will be with how the structure of social welfare and rehabilitation agencies affects the nature of their linkages with other organizations (Litwak and Meyer, 1965). Our theory suggests some hypotheses concerning the effectiveness of various levels of linkages and the sources of limitations on the types of linkages which organizations can use with each other. To offer an example, to be discussed further later, it would be our view that the type of interdependence affects the optimal linking procedure between organizations: in competitive interdependence, adjudicative procedures are indicated; in facilitative interdependence, communication procedures would be preferred.

RELATIONS BETWEEN INTERNAL STRUCTURE AND ORGANIZATIONAL LINKAGES

Pursuit of the analyses suggested by the frameworks described above should enable us to throw some light on the conflict between the bureaucracy and the professional, a conflict which many writers regard as inevitable (Scott and Blau, 1962). Our theoretical framework suggests that this problem can be broken down into two parts: (1) the utilization of a rationalistic bureaucracy when a human relations organizational model is called for; and (2) the operation of linkages between two organizations—i.e., social welfare and rehabilitation agency bureaucracies and professional associations--having separate but interdependent goals.

ILLUSTRATIVE APPLICATIONS OF CONCEPTUAL FRAMEWORK TO SOCIAL AND REHABILITATION ORGANIZATIONS

Illustrative Multimodel Analyses

The dimensions of organization described above can be used to classify and describe most formal organizations. For example, Miller (1968) describes a series of organizations in a large city which were temporarily allied to deal with problems of delinquency. According to this account, the social work agency which was specially set up to deal with hard-core delinquents comes very close to fulfilling the requirements for classification as a human relations organization. He points out that it had a small staff which was completely devoted to the task (i.e., missionary zeal). This is another way of describing the concept of internalized organization policy. The agency he describes had as its primary task the treatment of hard-core delinquents through group therapy. We would classify this task as relatively nonstandardized, compared to the county youth board in the same community and the recreational department, whose jobs can be defined in standardized ways. The county youth board defined its job in terms of loose supervision to insure that the law was not publicly violated; the recreation department defined its job as providing relatively standardized facilities and housekeeping functions. In contrast to the small social work agency, the personnel of the youth board and the recreation department were governed more by rules and regulations than by individual discretion. Workers in these two agencies had not internalized the values of their organizations but rather viewed their jobs as opportunities for personal advancement. They had a much more specified hierarchical system and less use for collegial meetings.

Thus we have a series of agencies ostensibly similar in that they were involved in problems of adolescence and delinquency. However, they defined their tasks differently, as far as degrees of uncertainty are concerned. The social work agency used a definition of greatest uncertainty (i.e., the complexity of group therapy); the probation officers and recreation department defined their tasks with most certainty (i.e., reporting public violations of probation and maintaining standardized recreational facilities). As expected from the theory described earlier, they thus vary in structure from an extreme form of human relations type to a very rationalistic merit organization.

If we examine the public welfare organizations, we can again classify their tasks in terms of the degree of uncertainty. The most certain task is the distribution of funds in the income maintenance programs. Next in line is the establishment of eligibility for these funds. Next in degree of uncertainty is the task of providing welfare recipients with relatively standardized information about services available to them when some common needs arise (e.g., medical or dental care, employment, and housing). Still less certain is the supportive treatment, therapeutic casework, and psychotherapy. According to our theory, the rationalistic structure would be most effective for handling the standardized tasks. Thus the distribution of funds can be handled according to explicit rules, by people and machines with highly specialized skills, in an atmosphere of impersonality, with great separation between policy and administration, and with great ability to specify duties and privileges. The Social Security Administration exemplifies this approach in many ways. All this would be even more obvious if public welfare moves in the direction of a negative income tax or family allowance.

By contrast, the provision of psychotherapy requires a far different kind of job activity. Here there is a demand for internalization of policy, activities cannot be specified ahead of time, and therefore there can be no highly specified rules detailing all aspects of the job. Professionals must be free to talk to colleagues and clients in an atmosphere of positive trust to handle problems in such uncertain situations, and they must be given much discretion rather than having decisions handed down by a hierarchy. In other words, the job pressures in therapy are very different from those in income maintenance.

This illustration raises one of the key problems which some multimodel theorists highlight: How does an organization survive when it must deal with two tasks requiring different administrative styles? Typical welfare departments survive by isolating or departmentalizing the two kinds of tasks, so that different people handle the different tasks. The isolation not only involves physical separation but also role differentiation (e.g., different job statuses) and often time separation as well. Similarly, unemployment compensation staffs have recently been physically separated from vocational counseling and job placement staffs in employment service offices. The theoretical explication and classification of these mechanisms of isolation and the methods by which communication is maintained within the organization will be key problems to which the proposed project will address itself.

To illustrate this point further and at the same time make clear that the solution of departmentalization is limited, let us look at the educational system. As stated above, Litwak and Meyer (1965) have pointed out that two opposing philosophies of education imply different degrees of uncertainty about the educational tasks as well as different administrative styles. The "drill" (sometimes called the Three R's) approach assumes that the transfer of knowledge is a very standardized event (i.e., repeat information often enough and have a rigorous testing procedure). By contrast, in the pupil-centered approach, the educational task is highly unique to each pupil and therefore, in terms of our analysis, highly uncertain. The first approach calls for a rationalistic structure, while the second approach is more consistent with a human relations structure. Thus the school in the first instance can detail ahead of time the lesson plans, what the teacher is to cover, the kinds of teaching material which shall be used, the hours the teacher will be in the school, etc. All of this can be laid down from a hierarchical level, and there is a minimum need of positive affective interaction between teachers, who are encouraged to become specialists within their fields. By contrast, in the pupil-centered approach there are no fixed curriculum or teaching materials which can be laid out ahead of time or from above. Rather, each teacher must have the discretion to pick her materials in consultation with the pupils. Projects may be extended into the community, and the hours of schooling are not so firmly fixed. Teachers are encouraged to engage in positive affective relations with both colleagues and students.

A combination of these two extremes is contained in the position that, although the task of motivating students to learn requires almost artistic creativity and in this sense has much uncertainty, there are a whole series of jobs which are certain and can be clearly programmed: keeping grade and attendance records, insuring that proper teaching materials are at hand, keeping the rooms clean, etc. Furthermore, both the uncertain tasks of motivation and the certain tasks of keeping track of students' academic progress and attendance are crucial to the system. As in the welfare and employment service illustrations, this situation requires one organization to perform two different tasks which have somewhat contradictory elements. However, unlike the earlier examples, this particular structure cannot readily isolate the tasks by departments and by people. The teacher typically performs both kinds of tasks. If there is a need for a mechanism of isolation, it must be some form of internalized role segregation. Thus the teacher must recognize that there are two roles with contradictory demands which she is being asked to perform. The potential friction between these roles can be minimized and even eliminated if the teacher realizes that the two roles relate to different tasks. However, if she has not properly internalized the roles as well as the legitimation for their separation, there will be considerable confusion on her part or the assignment of priority to one set of the organizational goals over the other (e.g., keep good records at the expense of good teaching, or stress good teaching at the expense of keeping good records). The study of these mechanisms of isolation, how they operate in various organizations, and their consequences for workers and their job performance is one of the chief concerns of this project.

If one turns to the field of closed institutions and correctional institutions, one finds very similar problems. Zald (1965), for instance, points out that correctional institutions may stress either custodial goals or treatment goals. According to our analytic framework, custodial goals permit much more certainty than treatment goals. Custody involves the assurance that inmates do not escape from the institution; this can be accomplished by creating maximum security institutions and keeping the inmates in cells as much of the day as possible. It is a relatively straightforward solution as compared with treatment goals. In the latter case there is much more uncertainty and art. Zald demonstrates that the more the institut[illegible] defines its goals as custody, the more likely its structure is to resemble wh[illegible] led a rationalistic organization. There is a sharper hierarchical st[illegible] e more detailed rules, relationships among staff and between st[illegible] ates are much more impersonal, rights and duties can be more clearly defined, and the staff do not have to internalize policy. By contrast, when treatment goals are stressed, just the opposite relation occurs. Authority is spread throughout the institutions, it is more difficult to design rules which can detail the job requirements, there is much greater need for the staff to internalize the values of the organization, and there is a much greater stress on positive affect among staff members and between staff and clients.

Zald also describes the situations in which the correctional institution stressed both custody and treatment goals. He points out the tendency for bifurcation of staff in such institutions. However, lacking our multimodel theory, Zald could not deal with the mechanisms of isolation and the problem of two different systems which must be simultaneously maintained. Perrow (1967), dealing with these same data, suggests in retrospect that he would have analyzed them differently in order to take account of this problem.

This analysis of correctional institutions has an exact parallel in prisons which also deal with custodial and rehabilitation goals. For an excellent description of the way in which these tasks pressure an organization in two different directions, see the discussion by McCleery (1964). McCleery and those administering the changes in prison had no clear idea of a multimodel approach and thus missed a solution to the organizational problem through two different administrative structures which would have to be in communication while being kept in isolation from each other. However, the reader who examines the description of what took place when a prison sought to move from a rationalistic structure with emphasis on custodial tasks to a human relations structure with emphasis on rehabilitation tasks can easily understand the consequent problems. The human relations structure was ineffective for custodial goals. What the "reformers" should have recognized was the need to maintain both goals and the consequent structural demands.

Another area in which the problems of organizational structure and certainty of tasks become central is that of mental health. The problem arose first in hospitals where the concept of a therapeutic milieu was used to describe both the structure of the organization and its goals. Hamburg (1957) has one of the best descriptions of what happens when one conceives of therapy as involving uncertainty and therefore attempts to change the structure of the mental health ward from a rationalistic one to a human relations one. He points out that the ward psychiatrist moves toward giving greater decision-making freedom to the ward attendants, nurses, janitors, and patients. Furthermore, there is a systematic attempt to internalize the policy of the therapeutic process among all staff members including nurses, attendants, janitors, etc. There is a stress on positive affect among staff, there is less detailed specification of jobs in terms of rules, and in general there is less specialization as each person devotes some time to the therapeutic process. Hamburg argues that this shift in administrative structure (i , from a rationalistic to a human relations basis) produces better therapeutic results (e.g., patients are released more quickly, there is less violence among the patients, staff turnover is reduced). We would argue that insofar as Hamburg is talking about a ward which is part of a larger hospital, it must also deal with the other tasks the hospital faces which are defined as having more certainty; e.g., billing, records of the patients' progress and status, feeding of patients, visiting hours, etc. A close look at some of these areas would indicate that in fact the hospital described by Hamburg had multiple tasks and that the purely human relations structure which Hamburg rightly stresses is not an adequate picture of the structure of the hospital.

One of the earliest approaches to a multimodel analysis of closed mental health institutions was provided by Henry (1957). His descriptions of various closed institutions and their treatment of the mentally ill runs the full range of organizational types. Thus his description of the very small private treatment home for disturbed children places it very close to a true human relations structure, with great emphasis on treatment procedures derived from psychotherapeutic principles and involving much uncertainty. The staff emphasizes positive affective relations; there are few if any rules for defining tasks; heavy reliance is placed on internalized values and diffused tasks. In contrast to such settings, his descriptions of large state hospitals for the mentally ill suggest that they are rationalistic structures which either have largely custodial goals or define the treatment process as one involving far more certainty than does psychotherapy (e.g., electroshock and drug treatments which can be routinely administered).

We shall conclude our illustrations with some discussion of new programs introduced by various areas of OEO and the Labor Department, during the recent decade. Ferman (1968) describes new employment agencies which are set up to find jobs and develop training programs for the hard-to-employ. He contrasts these new agencies with the traditional state employment agencies. From his description it is clear that the traditional employment service agencies define their jobs in routine terms. They have more or less standardized processes of listing available jobs and similar standardized qualifications for such jobs, such as education, prior job experience, and health. By contrast, the newer agencies have a much looser and uncertain definition of qualifications. They try to look at work motivation; they seek to determine the family conditions which produce or reduce such motivation; they attempt to determine the client's psychological state and how it must be altered to produce work motivation, etc. Characteristic of this kind of eligibility assessment is the extreme complexity and uncertainty involved. Precise and objective criteria are avoided. They define job procurement in a less standardized way. Instead of waiting for the employers to come to them, they actively go out and seek jobs. In addition, they do not accept the employer's definition of the job and its recruitment but try to persuade him to tailor the job to the needs of the client. They may ask employers to modify their attendance requirements, so that the new employee will not be fired if he does not come to work regularly, at least during an initial period of adjustment to the job.

This concept of job development involves much more [illegible]rtainty than the traditional employment agency, which accepts [illegible]efinition of the conditions. These new OEO and Labor Departme[illegible]ograms thus require a human relations structure, while the regular employment agencies can operate with a more rationalistic structure. When both are put in the same organization without mechanisms of isolation to keep them apart, then one or the other goal will suffer, as is clear from the experience of Concentrated Employment Programs which attempt to wed employment service agencies with community action agencies. Historically, it has been the goal of finding jobs for the hard-to-employ which has suffered. Although finding jobs for such people has always been within the mandate of the traditional employment agencies, they have never given emphasis to it. This lack of emphasis in part occurs because the task performances required by such a goal demand a very different structure than their rationalistic one. Not recognizing the need for multiple structures, agency personnel choose one (the rationalistic) over the other (human relations) and as a consequence make it impossible to fulfill those tasks which involve high uncertainty.

These speculations are provided for illustrative purposes. The reader should understand that part of the point of the proposed research is to see if this conceptual model can lead to productive empirical measures which would allow one to investigate meaningful relations between dimensions of organizational structure and the way in which work is done by social welfare and rehabilitation agencies.

Illustrative Linkage Theory Analyses

In a similar fashion one can illustrate the problems of linkages between the organization and its environment. Although the full development of this theme is not quite central to the point of the proposed project and would require a project in its own right, we will provide some pertinent illustrations and refer the reader to previous work by the investigators for much more illustrative material (Litwak and Rothman 1969; R. Warren, 1967; Levine and White, 1961; Mott, 1968).

One of the important problems of linkages involves the ways in which formal organizations relate to each other. This problem has been most clearly illustrated in the field of welfare by the series of government and foundation attempts to produce more explicit coordination between welfare agencies within cities. In general, the move has been toward a formal overall coordinating agency (e.g., Community Action Programs, Model Cities programs, earlier delinquency programs) such as described by Marris and Rein (1969), and Kramer (1969).

One of the central questions which has arisen as a result of these attempts at more formal coordination is exactly how much explicit authority such coordinating agencies command. For instance, Marris and Rein seem to feel that one formal coordinating agency for handling the multitudinous problems results in too much inflexibility. They also point out that establishment of formal coordinating structures is unrealistic because coordinating agencies do not have the financial or legal power to enforce their will. Mott, in his description of a New York Health Council (1968), goes further in suggesting that, even where such authority exists, the single autonomous coordinating agency tends to be inflexible. Both authors suggest that a more decentralized procedure would be more effective, given the circumstances of the multiplicity of tasks and power bases. Marris and Rein go further than Mott in suggesting models of coordination which involve much more ad hoc, incremental kinds of planning. In other words, one of the key practical questions which face people in welfare planning is how formal the linkages with other organizations should be, how much autonomy should be given to the linking structure, and how much should be retained by the member organizations.

We would in addition suggest several other dimensions of linkages to be considered. Ferman (1968), in speaking about the relationship between traditional employment agencies and the newer ones established to deal with hard-to-employ people, and Miller (1968), in his analysis of the relationships between social work agencies and county youth boards dealing with delinquents, point out that the structural differences between the organizations frequently lead to friction between personnel who serve as linkage agents between them. These linkage agents have radically different definitions of work which tend to be translated into interpersonal disputes when they have to work together. Miller also suggests that many of the coordinating efforts are made on the assumption that there is no real intrinsic conflict between the needs of the various organizations. As a result, it is often assumed that further information would iron out any differences. However, as Miller and Riessman (1968), Kramer (1969) and Miller (1968) suggest, there may be some basic conflicts between segments of the community. Thus it is not clear that the demands of the poor for a greater voice in the running of the OEO programs are consistent with the needs of the professionals, the middle class, or the politicians. Miller points out that the secular approach of the social work delinquency agency was not at all consistent with the demands of the church groups that all treatment take place within a religious moral context. Nevertheless, the social work agency and the religious organization were tied into a common coordinating network.

Our balance theory suggests that one of the key things to look for in the linkages is whether or not there were modes for adjudicating disputes. Thus in situations where agencies involved in competitive interdependence are also coordinating with each other, they need adjudicating devices or they tend quickly to split up. This happened in the case described by Miller as well as several described by Marris and Rein. By contrast, where organizations are linked in facilitative interdependence, we would hypothesize that there is no need for adjudicatory devices in the linkages. The traditional stress on communication would be sufficiently effective. In any case, these preliminary analyses suggest the need to classify linkages on the basis of their adjudicatory devices.

The problems of linkages between formal organizations and community primary groups are somewhat different from those of linkages between formal organizations. One of the major bases for this difference is the extent to which their structures are antithethical to each other. Thus, as Litwak and Meyer (1966) point out, there are two kinds of dangers involved in this kind of linkage. One danger is that the bureaucracy and the community are so far apart that neither can achieve its goals. It was this kind of consideration which led some social workers to move toward an aggressive casework technique. It also led to the detached gang worker program as social workers realized that they could not deal with the problem of delinquency until they were able to get closer to the gang which played such a key role in the maintenance of delinquency. This movement also caused some of the schools (e.g., the Detroit public schools in the late 1950's and early 1960's) to introduce community agents and a "lighted" school (i.e., a school building kept open for community use after school hours) in order to bring the school and community closer together. In part, the legislative mandate that the OEO programs have local community participants was an effort to insure that the distance between bureaucracies and people would not be too great; as a consequence, the programs of the bureaucracies were expected to have a greater chance of meeting their stated goals.

Similarly, the development of community mental health programs has as one of its components the need to decentralize the treatment of the mentally ill and bring services closer to the people who most need services, especially the very poor. Thus some community health programs have sought to develop "storefront" services in ghetto areas. Finally, the demands of community groups for a greater say in the bureaucracies, such as the demand for decentralized schools, civilian review boards for the police, greater participation of local groups in OEO programs (see Kramer, 1969), are all efforts on the part of the community to close the distance between it and bureaucratic organizations, despite the disparities between community structure and formal agency structure.

These illustrations have suggested only one issue in the linkage problem between bureaucracies and community groups. Another problem is that of community groups that are too close to bureaucratic organizations. Family, friendship, and neighborhood groups are not run on the basis of merit. Love, unlimited commitment, and noninstrumental relations, which are essential to family relations, become destructive when introduced into formal organizations, where they are described as favoritism, nepotism, and corruption. Balance theory suggests that too much closeness between formal organizations and primary groups will lead to the destruction of both, because their structures are incompatible. On the other hand, if they are kept too far apart from each other, they will not serve each other's needs. Thus our theoretical structure suggests that they must meet at some middle point.

Up to very recently, the problem has been that hospital and social service bureaucracies have been too distant from community primary groups. However, as society has begun to correct this defect, we can see some of the problems of too much closeness beginning to emerge. Kramer illustrates the problem of too much closeness by pointing out that, in various settings, community action agencies have to deal with charges of nepotism, favoritism, and corruption because primary group standards are applied to professional situations. He also illustrates the problems of too much distance when he points out that officials of organizations do not sufficiently have the needs of local communities in mind.

From this analysis we suggest that a key problem in studying linkages between bureaucratic organizations and primary groups is the analysis of the properties of linkages which permit primary groups and bureaucracies to increase or decrease social distance. As has been indicated elsewhere, this involves questions such as how the initiator of an action avoids problems of selective perception (see Litwak and Meyer, 1966).

THE PROPOSED WORK - PHASE I

The preceding pages describe a broad theoretical structure and some illustrative examples of its application to organizations in the social welfare and rehabilitation fields. The theory is one which identifies what appear to be significant dimensions of organizational structure—significant in their relationships to the work done by such organizations, to job roles in the organizations, and to ways in which workers are affected by (and in turn influence) organizational structure, effectiveness, and job performance.

This conceptual system will serve as a useful guide to the identification of relevant and measurable variables. The main body of this proposal (Phase I) is concerned with a review of the existing research literature in order to develop a more refined statement of those variables and methods for their measurement. The literature review will be followed by an exploratory field investigation, a more formalized and extensive empirical study, and an input to the national survey projected by the Social and Rehabilitation Service (SRS). Thus there will be important consequences to flow from the selection of variables which is ultimately made as a result of the literature review. However, there is a danger in a literature review which is too tightly tied to a particular conceptual scheme; the danger lies in the possibility that selective perception will lead the investigators to omit or fail to notice promising variables which do not fit the theory. Given the importance of the consequences, this danger cannot be ignored. Therefore, we plan to use a systematic method for literature re[illegible]igned [illegible] prevent a biased sampling [illegible]ion, the system for reviewing the literature will be described. Then the issues in selecting variables for measurement will be discussed, and an outline of a sampling procedure for the exploratory field investigation presented. Taken together, these topics define our work plan for Phase I of the proposed project.

SYSTEMATIC REVIEW OF THE LITERATURE

Over the last two years, one of the principal investigators has been involved in a literature search which will provide the basic framework for the literature review to be undertaken in this study. Concomitant with the knowledge explosion which has erupted in the social sciences and other fields, the retrieval of pertinent literature has become a problem of major proportions. We will suggest here a procedure which we believe provides a systematic and efficient way of proceeding in keeping with the objectives of the sponsor.

A group of 25 journals will be selected for inclusion in the study. This group of journals will be those which: (a) are recognized in the field; (b) include some reasonable proportion of articles in organizational analysis; (c) include some that take a social science orientation and others which take a professional orientation in dealing with organizational matters; (d) cover a range of disciplines (sociology, social psychology, political science, applied anthropology) and a range of professions (social work, community mental health, public health, public administration, city planning, and adult education).

Applying these criteria, the following periodicals will be included in the review.

Social Science Journals

Administrative Science Quarterly
American Anthropologist
American Journal of Sociology
American Political Science Review
American Sociological Review
Human Organization
Journal of Conflict Resolution
Journal of Human Relations
Journal of Politics
Journal of Social Issues
Midwest Journal of Politics
Rural Sociology
Social Forces
Social Problems
Trans-Action

"Professional" Journals

Adult Education
Adult Leadership
American Journal of Orthopsychiatry
Community Mental Health
Journal of the American Institute of Planners
Journal of Health and Social Behavior
Public Administration Quarterly
Social Work
Social Service Review
Urban Affairs Quarterly

Each of the journals in this pool has already been reviewed in detail chronologically for the years 1964-1970; for purposes of this project, those articles will be selected from the pool which deal with organizational problems. The emphasis will be on empirical research studies in order to provide a stronger basis for hypothesis building and also because such materials will be most useful in solving problems of measurement. A thorough abstract of each study is prepared, indicating (a) the major hypothesis or area of investigation; (b) methodology; (c) limitations; (d) major findings; (e) implications for social welfare and rehabilitation practice and service delivery.

As stated, a large portion of this process has already been completed. For the purpose of this investigation, the literature review will be updated and completed and report forms will be analyzed with reference to the objectives of this project. The procedure in this literature retrieval process is to collate the report forms along relevant dimensions, and then to abstract sets of propositions which are outlined and their empirical bases summarized in a format specifically developed for achieving such syntheses.

Through the use of this system and the work already carried out through its application, the search and abstracting process for this project can be foreshortened while the analysis, codification, and synthesis of the literature is optimized without the danger of a theoretically biased selection of sources.

SELECTION OF VARIABLES FOR MEASUREMENT

There are several problems of measurement in studying organizations. One of the key problems is that of measuring organizational effectiveness. Some have sought a universal definition of effectiveness, such as the survival of the organization itself. This is not our orientation.

Problems of effectiveness have often proven muddy ones to handle because organizations often have multiple goals which are not necessarily consistent and have no simple way of ordering them. Thus prisons have both custodial goals and treatment goals and the means for achieving one tend to disrupt achievement of the other (Cressey, 1964). How is one to measure effectiveness without being able to assign some priority to one or the other goal? It is often difficult to know what the priority of the policy maker or the public is. In addition, it is often difficult to state what the goals of an organization might be. The goal of a liberal arts education is often stated as developing a civilized man or enabling people rationally to handle problems during their lifetimes. The goal of psychotherapy is to provide mental health, but it is difficult to say precisely what mental health might be. When one seeks to define any of these more global terms in some specific fashion, he is immediately attacked as providing the wrong definition. For example, showing that people who graduate from one college have a better grasp of physics or math would not prove anything about effectiveness to those who claim that education is something more than immediate memory of facts in a given field.

For our exploratory purposes, we think the approach to the relationship between organizational structure and effectiveness might be solved through a sampling technique. Thus one might take extreme cases of organizations rated by knowledgeable experts as clearly effective and ineffective on the basis of several commonly used criteria and compare their organizational structures. This lays one open to the charge that the middle of the continuum might be something other than a simple projection between two extremes. Nevertheless, we think this a good opening strategy. In this regard the sampling procedure and technique used by Lawrence and Lorsch (1967) in establishing the effectiveness of companies within a given industry is instructive. They utilized three criteria—rate of growth, absolute profits, and subjective estimates of people within the field. They pooled organizations for which all three criteria were in agreement, and from that pool selected the ones most effective and least effective. It is clear that these criteria do not necessarily correlate. When they do not, the investigator would have to find some rationale for assigning one greater priority than the other. However, insofar as the investigator can avoid the problem for the exploratory phase, he might have a meaningful measure of effectiveness which would provide him with a good discriminator for organizational variables. For our purposes we might use the Pugh performance criteria—effectiveness, innovativeness, and morale (Pugh et al., 1969).

Similarly one could define situations in which organizations deal with standardized (certain) and nonstandardized (uncertain) tasks. Thus the Lawrence and Lorsch comparison of plastics companies with bottling companies permitted them to compare companies with 20 new products a year with those having the same product for 20 years. There is a certain face validity to the position that the bottling plant had a more standardized task to deal with than the plastics industry. It would also be possible for us to use the Perrow (1967) paradigm for selecting different types of organizations which reflect varying degrees of uncertainty.

One of the major problems of measurement has to do with the measurement of the internal dimensions of an organization. Thus considerable time and effort have been put into measuring hierarchy, rules, specialization, impersonality, separation of administrative and policy decisions, delimitation of duties and privileges, and merit. There have been several pitfalls in these measurement efforts. First, investigators have used individuals' appraisals of their own influence, and it is not clear how valid such estimates are. Secondly, the question of whether to use absolute measures or relative measures has not yet been resolved by scholars in the field. Should one count the absolute number of rules used in various areas of an organization's endeavor for comparison purposes? Or should one compare the relative amount of behavior which is governed by rules and not by rules? In general, our preference is to use combinations of subjective and objective measures of organizational structure wherever possible. For instance, it is probably a mistake to count the levels of administration as a measure of the steepness of hierarchy of authority. Even a human relations structure which uses committees rather than rules to govern behavior will have to have several different levels of authority on paper to describe the roles of the people who convene the committee meetings and are required to report the results. This phenomenon accounts for the paradoxical findings that the more professionals in an organization, the more levels of authority there are. Thus such an objective measure must be related to a job analysis which indicates what powers, if any, the supervisor actually has. We would want to differentiate between the authority of a foreman of an assembly line and of a supervisor of a professional social worker. In most instances, the latter would actually have much less power than the former; to view them both as similar steps in an authority structure would be erroneous.

Similarly it is important to define rules very precisely. Those rules which give enormous discretion should be differentiated from rules which give little discretion. It is therefore not only important to analyze the formal rules listed in the organizational structure or the job description but to get an accurate measure of how much discretion is permitted. To illustrate, the National Labor Relations Board is mandated to enforce a law which is admittedly vague and ambiguous. For this reason, NLRB eventually has a trial hearing to determine in a given situation who has obeyed and who has not obeyed the rules. By contrast, the cost-of-living clauses in union contracts are very specific, providing for little discretion by either side. Most alternatives are anticipated, and a rule is given for each alternative. If one counted the number of rules in each of the above situations, he would find many more rules in NLRB than in the cost-of-living clause in union contracts. By a sheer number count he would conclude that the NLRB is much more subject to rules than are the cost-of-living pay increases. Yet the cost-of-living clause almost completely preempts individual decision, while NLRB legislation gives considerable leeway. Thus mechanical counts of the number of rules and laws without any real understanding of the amount of discretion they provide would not be very useful.

In addition to an understanding of the objective and subjective meaning of each dimension or organization, it is important to take into account relative relationships. Thus if one studies organizations dominated by professionals, one might find that they have both more rules and more internalized policy than a rationalistic organization such as a governmental bureau staffed by nonprofessional personnel. The key factor might be the relative proportion of time spent on rule-governed and discretionary activities.

In studying organizations, one has to be sensitive to factors such as those described above, adaptable and open to the use of a variety of measurement approaches attuned to different structural variables. Pugh and associates describe the variety of scaling procedures used in their studies in the following way:

> Some were simple dichotomies (such as the impersonality of origin) or counts (such as the number of operating sites); some were ordered category scales, locating an organization at one point along a postulated dimension (such as closeness of link with customers or clients). Some were stable, ordered scales established by linking together a large number of items exhibiting the characteristic on the basis of cumulative scaling procedures, such as workflow rigidity, an aspect of technology. Some were summary scales extracted by principal-components analysis to summarize a whole dimension, such as operating variability, an aspect of charter. (Pugh et al., 1969, p. 93)

One does not enter into the matter of organizational measurement by way of opening a blank page. The field of organizational analysis, while still rather new, has already established a tradition of quantification, however rough. We intend to exploit this tradition, making those adaptations which are deemed necessary. Thus, organizational size has been measured by number of employees or annual budget (or by the logarithm of the number of employees in some studies). Workflow rigidity has been measured by reference to criteria such as waiting time vs. no waiting time, single source input vs. multisource input, breakdown that stops workflow vs. one that does not stop workflow, etc. Degree of performance evaluation has been determined by a scale such as: (1) no formal evaluation procedures; (2) personal evaluation only; (3) measurements of some aspects of performance; and (4) measurements over the entire performance range.

It is clear from this brief discussion that there are enormous complexities in selecting or developing measurements through which significant variables can be operationalized, but that there are also some potential measurement strategies already available in the literature. It is difficult, in advance of a final selection of variables, to be more specific about the particular measures to be used. Nevertheless, it is clear that the ultimate choices must also be guided by considerations of practicality and ease—practicality in the sense that their use is responsive to the constraints posed by the exigencies of research in operating social welfare and rehabilitation agencies, and in the sense of being economical of time and expertise. Finally, the measures must be capable of adaptation to the needs of a national survey. It is therefore necessary that even measures which must be obtained through complicated procedures in the exploratory field investigation must also be potentially reducible to relatively simple large-scale data collection methods.

SAMPLING FOR THE EXPLORATORY STUDY

In our view one of the most significant factors affecting a range of operations of formal organizations is whether they engage in highly standardized or highly nonstandardized tasks. Standardized tasks have a high degree of regularity, repetitiveness, and predictability; consequently they can be treated in fairly routinized ways. The level of professionalization, for example, required to manage standardized tasks is relatively low. Nonstandardized tasks, on the other hand, require personnel who are adaptable, creative, and knowledgeable. Because such events cannot be handled through generalized rules, highly trained staff are required who can act on the spot with considerable discretion and autonomy. Nonstandardized tasks thus may require greater decentralization, less formalization, collegial decision making, and the like. A range of organizational variables, including many of those distinguished above, operate in different ways in organizations engaged in more standardized and less standardized social welfare functions. Thus, we hypothesize, the degree of task standardization may be a crucial factor to consider in examining many dimensions of internal organizational structure.

In the exploratory study we propose to select organizations on the basis of the central criterial variable in our conceptual scheme: the extent to which they deal with standardized vs. nonstandardized tasks, such as income maintenance agencies vs. psychiatric and casework treatment agencies. We propose, for the exploratory study, to select extreme cases of standardized and nonstandardized task organizations. We will also choose agencies which work equally with both types of tasks, such as convalescent homes, hospitals, rehabilitation agencies providing both treatment and income maintenance, etc. Thus we will have organizations representing three positions on the dimension of task certainty-uncertainty. For each position we will use informed judges working from generally agreed-on criteria, such as those cited earlier in this proposal, to select at least two organizations: one which is highly successful or effective, and one which is not successful or effective. Thus our sample will consist of four organizations, classified by two levels of task standardization and two levels of effectiveness. We will then examine a wide range of organizational variables, such as those listed on pp. 60-61 of this proposal. This exploratory study will be an informal one in which we will pilot-test various measurement strategies and also use our experience as participant-observers in the agencies to throw light on some of the hypotheses generated by our conceptual scheme and the literature review.

These procedures are admittedly sketchy. They leave some gaps, such as providing relatively little opportunity to examine relationships between internal organization factors and external environmental factors. They also make assumptions about the relations of extreme to middle categories on our basic dimension. Nevertheless, this sketchiness is appropriate to an initial pilot investigation, and the risks are worth taking.

Given this rationale, our sampling design will be as follows:

Degree of Task Certainty	*Organizational Effectiveness*	
	Effective	*Ineffective*
Organizations with standardized products, such as establishing eligibility for welfare, distribution of checks, listing job openings.	X	X
Organizations dealing with nonstandard products, such as therapeutic casework with neurotic clients, counseling the hard-to-employ, marriage counseling.	X	X

Intensive field visits will be made to each of these four agency settings so that many aspects of atmosphere and structure can be examined. We will focus our attention particularly on those factors which seem to account for the greater effectiveness of staff performance and/or agency output in each of the agency pairs. In other words, we will attend not only to variables which contribute to knowledge in the field of organizational analysis. Rather, we will attack that task from a point of departure which, through the internal design of the study, will automatically deal with factors which make a difference in effectiveness of service delivery. We believe that this design will yield data which will be highly relevant to matters of work roles, work performance, organization and delivery of client services, utilization of professional and nonprofessional manpower, worker morale, and the general education, recruitment and training of staff.

THE PROPOSED WORK - PHASE II

Phase II consists of technical assistance to SRS in incorporating the results of Phase I into the planning, developing, and pilot-testing for the projected national survey of social welfare and rehabilitation workers, work, and organizational contexts in which work is performed.

THE PROPOSED WORK - PHASE III

The objectives of Phase III are to refine and extend the conceptual scheme which emerges from Phase I, provide empirical tests of relevant hypotheses, formalize and test strategies for measuring significant organizational variables and their correlates in worker performance-morale and organizational effectiveness, and explore in depth promising leads which may serve to amplify understanding of the concepts represented in the national survey. A further objective is to produce policy recommendations concerning effective solutions to organizational and service delivery problems facing social welfare and rehabilitation agencies in the United States today.

In order to validate and elaborate on the work of the exploratory study in Phase I, we propose to use a two-pronged approach. The first part will consist of an observational and questionnaire study of a stratified group of social welfare and rehabilitation organizations. This part will use an extension of the same sampling plan used in Phase I, with the addition of organizational linkage to the primary group community and to other organizations as a sampling criterion. As indicated in the theoretical section of this proposal, linkage is a key factor which can account for significant aspects of service delivery patterns, much as task standardization is expected to account for significant factors in organizations' internal structures.

This extension results in the following sampling design:

	Organizational Linkages		
Degree of task standardization	*Organizations linked mainly to primary groups*	*Organizations linked mainly to other organizations*	*Relatively isolated organizations*
Organizations concerned primarily with uniform tasks	X	X	X
Organizations concerned primarily with nonuniform tasks	X	X	X
Organizations concerned with both uniform and nonuniform tasks	X	X	X

Each cell of the above table will contain organizations from at least two different fields of rehabilitation and social welfare and will include at least two organizations which can be rated as effective and two ineffective. The specific types of organizations to be included can remain open for the time and will be selected in consultation with SRS staff. Thus each cell will contain six organizations, for a total sample of 54.

The other prong of the Phase III study will consist of a questionnaire study. We will select a sample of approximately 300 organizations in several areas of welfare and rehabilitation, and use a mail survey form. With the expectation that the staffs of the organizations sampled will average about 50 workers, the total N for this study will be 1,500 respondents. The function of the survey will be to cross-validate the findings of the more intensive study of 54 organizations, to produce an estimate of the extent to which certain organizational problems are common to the field at the time of the study, as a guide to ordering priorities for intervention and change efforts and as a means of testing adaptations of the measurements used in the intensive study to a mass survey format.

One of the important matters to be considered in this third phase is establishing the boundaries of the social welfare field, or the universe from which we will select our sample of organizations. A large number of publications by social work analysts such as Friedlander (1968), Vasey (1958), Wilensky and Lebeaux (1965), Stroup (1952), and others have defined and subdivided the social work/social welfare field in various ways. No standard or popularly accepted classification system prevails in the field. In light of this situation, we tentatively propose a formulation which involves the intersection of two dimensions: functions of social welfare; and fields of practice in which social work activities take place. Kahn (1969) has suggested that social welfare may be viewed in terms of the following five levels of intervention or functions:

> Institutional change of a broad nature
>
> Work within institutional areas outside of social work proper (i.e., economic development, physical planning, etc.)
>
> Income transfers (social insurance, public assistance, family allowances, training stipends, subsidies, etc.)
>
> Nonmonetary social benefits of social utilities (parks and recreation facilities, day nurseries, public housing, etc.)
>
> Case services in guidance and treatment (casework and personal counseling, homemaker services, adoptions, etc.)

Although Kahn's list may be broadened somewhat to capture some emerging functions which cannot be allocated among these five areas, it suggests a guide for sampling in such a way as to achieve a balanced representation of key functional areas.

In addition to functions, social work has traditionally been approached from the standpoint of "fields of practice," which may be viewed on one hand as institutional sectors of the field and on the other as social problem complexes with which social work personnel deal. Bartlett has done what may be the definitive work on field of practice (1959, 1961), and we will borrow from her classificatory system in developing the sampling scheme for Phase III. Thus, within each of the functional areas noted above, the following fields of practice would be represented, when relevant:

Child welfare

Community planning and development

Correctional services

Family welfare

Health and medical services

Leisure time and group services

Psychiatric and community mental health services

Public assistance services

Schools

In addition, we will attempt to balance public and private auspices, and geographic coverage of organizational functions (local, state, federal).

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ORGANIZATIONAL FACTORS IN THE PERFORMANCE OF SOCIAL WELFARE AND REHABILITATION WORKERS

by

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Human Resources Research Organization

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ORGANIZATIONAL FACTORS IN THE PERFORMANCE OF SOCIAL WELFARE AND REHABILITATION WORKERS

Joseph A. Olmstead*

It is easy to establish an organization, and it is not hard to get some performance from it. However, it is exceedingly difficult to insure that an organization so established will perform at consistently high levels of effectiveness. This difficulty persists despite the fact that much is known about factors that influence performance.

The problem is that this knowledge is embedded in a number of different research areas—organizational design, man-machine systems, human capabilities and limitations, role structures, group processes, and interpersonal relations. Considered separately, each of these areas has made significant advances in the knowledge gained through research. Yet there are enormous discrepancies between existing knowledge in each area and application of that knowledge to the problem of improving performance within organizations.

This paper is an effort to bridge the gap between research and practice with reference to social welfare and rehabilitation organizations. To accomplish this purpose, the major theoretical approaches to the study of organizations will first be discussed, and a possible way of resolving some critical issues will be suggested. Then certain concepts and findings which have particular relevance for social and rehabilitation agencies will be presented. Finally implications for both research and management will be discussed.

THEORIES OF ORGANIZATION

The organizational literature is characterized by numerous points of view, each of which seems to possess a certain degree of legitimacy. The problem is that the one phenomenon, an organization, can be validly approached from a number of different standpoints. Thus the systems developed by business theorists, social scientists, behavioral scientists, and operations researchers usually consist of widely different concepts and variables. Stogdill (1966) lists 18 separate ways of conceptualizing organizations and groups and says that this is not an exhaustive list. Yet each approach has a certain relevance, and each contributes to better understanding of organizations.

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One major contributor to the proliferation of approaches is a certain duality which has existed throughout much recent history of the field. The division ultimately reduces to the old question of organizational requirements vs. needs of the individual. Although Barnard (1938) early recognized the necessity for balance between the two elements, the work of most writers has reflected one emphasis or the other but rarely both. Some writers, such as Argyris (1957) and McGregor (1967), have even made the conflict keystones of their systems. Only in the past several years have a few theorists, such as Bennis (1966), attempted to reconcile the differing viewpoints in an integrated position.

Recognition of these approaches and of the attempts to reconcile them is essential to understanding the point at which organizational research has arrived. Accordingly the major positions will be summarized, and a few landmarks will be reviewed.

STRUCTURAL THEORIES

The problem of structure is a recurring theme in organizational theory. All organizations have to provide for the meshing of members' activities. Thus tasks must be allocated, authority (the right to make decisions) must be assigned, and functions must be coordinated. These requirements lead to development of a hierarchical framework which is called the "structure" of the organization.

The putative father of structural theory is Max Weber, the German sociologist, who developed his concept of bureaucracy around the formal structure of organizations. Weber (1947) noted that, in an organization, authority is vested in positions rather than individuals and is exercised through a formal system of rules and procedures. The positions are arranged in a hierarchy with each position exercising authority over all of those below it. According to Weber, the formalism characteristic of bureaucracies minimizes variability in problem solutions and maintains high standards of internal efficiency. From this viewpoint, "an organization is a social device for efficiently accomplishing through group means some stated purpose; it is the equivalent of the blueprint for the design of the machine which is to be created for some practical purpose" (Katz and Kahn, 1966, p. 16).

Weber wrote on bureaucracy around the turn of the century. Until recently, most structural theorists followed him in stressing the rational aspects of organizations. Most concerned themselves with deriving more and more ideal structures and with analyzing how such factors as objectives, size, geographical dispersion, and techniques of operation influence the shapes of hierarchical frameworks. Because a scientist does not often get an opportunity to manipulate the structures of existing organizations, much of this work was descriptive.

Most of the earlier theorists were concerned with increasing effectiveness through improved structural designs. However, in recent years, more attention has been given to the attitudes, values, and goals of subordinate units and to the ways in which these unintended consequences can actually modify an organization's structure. This development began with Merton (1940) and continued with Dubin (1949) and Selznick (1957). As one example, Selznick demonstrated in a study of the Tennessee Valley Authority that Weber's description of a formal bureaucracy left out the problems that occur when organizational leaders delegate some of their authority, which inevitably they must. Delegation increases unit specialization and thus emphasizes conflicts of interest between units and between a unit and the organization as a whole. Such conflicts hamper the effectiveness anticipated when ideal structures are designed.

These recent developments have expanded the perspectives of structural theorists. Although there is still a vigorous concern with organizational design (Thompson, 1966) and with linkages, levels, and bonds of organizations (Haire, 1959; Marschak, 1959), most present-day theorists (Selznick, 1957; Dubin, 1959; Rapoport, 1959) attempt to bring internal processes into their systems. Primary emphasis remains upon structure, but there is now recognition that disregard of the human variable may have serious disrupting effects upon an ideally designed organization.

Structural theory has numerous critics. In particular, the older theories of bureaucracy have been attacked from many sides. According to Bennis, "Almost everybody, including many students of organizational behavior, approaches bureaucracy with a chip on his shoulder. It has been criticized for its theoretical confusion and contradictions, for moral and ethical reasons, on practical grounds such as its inefficiency, for its methodological weaknesses, and for containing too many implicit values or for containing too few" (1966, p. 5).

Some criticisms appear to be more valid than others. However, several limitations of structural theory are readily apparent and have particular relevance for this discussion. The first major limitation is that structural theories usually focus upon the anatomy of organizations rather than their behavior. A knowledge of anatomy is important for understanding any organism; however, it is only a small part of the story. Viewing an organization solely from the standpoint of structure is like looking at an iceberg. The greater portion of it is never seen.

This limitation would not seem so critical if theoretical understanding were the only consideration. The trouble is that structural theories held predominance for so long and they offer such easy answers that many practitioners—administrators, managers, military commanders, etc.—look to organizational design as the solution to problems whose sources often lie elsewhere. When difficulties arise within an organization, the most obvious solution is to redesign a job, change the authority structure, or modify the span of control, when in fact these aspects may be only tangentially relevant to the real problems.

A second limitation is that structural theories most frequently are concerned with derivation of ideal structures rather than with the design of real-life organizations. While ideal structures can contribute to thinking about real organizations, many of the discussions are simply irrelevant to practical situations.

A final limitation is that most structural theories ignore the effects that the personalities of members may exert upon the shape of an organization. A strong leader or team of leaders may exercise dramatic modifications upon the allocation of responsibility and authority. In a similar way, single positions or entire structures are sometimes changed to fit the competencies or limitations of incumbents. Structural theories rarely take such factors into account.

Despite these limitations, structural theories make valuable contributions to knowledge of organizational behavior. For example, an understanding of the ways in which such factors as missions, objectives, size, and techniques of operation determine optimum structure is critical for efficient functioning. Furthermore, the question of structure, of the linkage between positions, is closely associated with problems of information processing and decision making. The number of links in a system and the concomitant allocations of authority may have serious consequences for communication load and vulnerability to information loss. It seems clear that structural concepts, when viewed in the proper perspective, have an important place in any systematic theory of organizational functioning.

GROUP THEORIES

Weber himself eventually got around to expressing fear that the bureaucratic way of life tends to smother individual potentialities. He was the forerunner of a large number of writers who have sounded the alarm against practicing bureaucracy. Indeed, Bennis, in a discussion of "the decline of bureaucracy," states:

> . . .it would be fair to say that a great deal of the work on organizational behavior over the past two decades has been a footnote to the bureaucratic "backlash" which aroused Weber's passion: saving mankind's soul "from the supreme mastery of the bureaucratic way of life." At least, very few of us have been indifferent to the fact that the bureaucratic mechanism is a social instrument in the service of repression; that it treats man's ego and social needs as a constant, or as nonexistent or inert; that these confined and constricted needs insinuate themselves into the social processes of organizations in strange, unintended ways; and that those very matters which Weber claimed escaped calculation—love, power, hate—not only are calculable and powerful in their effects but must be reckoned with (1966, p. 7).

Bennis probably overstates the case when he envisions concerted movement to save "mankind's soul from the supreme mastery of a bureaucratic way of life." Certainly, there has been a recent flurry of writings concerned with the inhibiting effects of organizational life. These will be discussed in the section on individual theories. However, the earliest, and still continuing, attack came not so much from a concern for the repressive effects of organizations as from discovery of a basic fallacy in classical structural theory. The fallacy was that structural theory fails to recognize the effects of informal groups upon motivation, behavior, and performance in organizations.

Group theories of organization stem from two unrelated sources. The first was the work begun by Mayo (1933) at the Hawthorne plant of Western Electric and continued by Roethlisberger and Dickson (1939). These writers "discovered" the influence of the face-to-face informal group upon motivation and behavior in a work situation. However, for them, there was no essential conflict between man and the organization. Rather, satisfying the workers' social and psychological needs was seen as congruent with the organization's goals of effectiveness and productivity.

Directly descending from Mayo are Whyte (1959, 1961), Homans (1950), and Zaleznik (1964). Working with data drawn from business organizations (usually obtained by intensive case study of a single firm), these theorists developed such findings as the following: the output of a worker is determined as much by his social relations as by his abilities and skills; noneconomic rewards are extremely important in the motivation and satisfaction of personnel; group-held norms and attitudes play a major role in an individual's evaluation of his work situation; and informal leaders can develop who may possess more actual power than appointed supervisors.

The second source of group theories was the work of Kurt Lewin (1947) who stressed the importance of group decision making and participation in motivating people. Following Lewin, there has appeared a long series, of which the most notable for this paper are the leadership studies of Lewin, Lippitt, and White (1939), the participation studies of Coch and French (1948), and the work on morale and productivity by Katz and Kahn (1952). Although not yet finished, the work of Lewin's successors reached a landmark with the publication of Likert's *New Patterns of Management* (1961). In this book, Likert proposes a "modified" theory of management in which he stresses the importance of group forces in worker motivation, the necessity for managers and supervisors to serve as "linking pins" between the various groups and levels within an organization, and the essentiality but relative independence of both productivity and morale. Likert has further elaborated on his theory in a more recent book, *The Human Organization* (1967).

Although the lineal descendents of Mayo and Lewin have remained apart in their general approaches, many common elements can be identified. In both approaches, the principal emphasis was changed from Weber's rational bureaucracy to an organizational model which takes account of unanticipated consequences, such as feelings, attitudes, norms, sentiments, and perceptions. The behavior of an organization is seen as less mechanistic but also more unpredictable.

The acceptance of social relationships as a major determinant of organizational behavior was a significant development in the theory of organizations. The strong reaction of group theorists to the older rational models was highly valuable in calling attention to a hitherto ignored facet in organizational functioning. On the other hand, the aversion of group theorists, especially the Lewinians, to anything resembling a hierarchy in organization has been something of a limitation. So far, there have been few attempts to relate group behavior to organizational functioning in any systematic way. Likert comes closest, but his concepts become rather pallid when he moves into discussion of groups in relation to hierarchical levels.

Many group theorists have been reluctant to give full weight to formal authority relationships. In fact, this reluctance has been so pronounced that Cartwright, one of the more eminent group theorists, has accused group psychology of being "soft on power" (1959). Especially for groups within hierarchical organizations, power is a critical variable. Because organizations are structured on the basis of authority relationships, groups within organizations are different from those outside. This fact can never be ignored.

INDIVIDUAL THEORIES

The rubric "Individual Theories" embraces two approaches that are only remotely related. On the one hand, a rather large group of researchers and a smaller number of theorists are concerned with psychological factors that affect the performance of individuals within organizations. On the other hand, a small but increasing number of writers, in violent reaction against rational structural theories and the practices based upon them, have emphasized the conflict between organizational requirements and the needs of the individual. Both approaches are concerned with the performance of individuals. However, the first addresses itself to improving performance through better selection, training, leadership, etc. The second approach starts with the notion of a basic incompatibility between organization and individual and then attempts to modify organizations and their practices in ways intended to permit greater opportunities for need satisfaction by personnel.

The first approach centers around those activities commonly considered to be within the purview of traditional "industrial psychology." Stemming from a long and respectable history of applied work, there has developed a considerable body of studies concerned with such concrete problems as selection, training, conditions of work, methods of payment, human engineering, etc. In these areas, a genuine contribution has been made in fitting the man to the job. Until recently, this contribution has been mainly in terms of methods. Most work has relied on analyses of single problems in unique situations rather than systematic studies of generalized phenomena.

This limitation has subjected individual theorists to criticism by a number of writers who desire a more systematic understanding of the problems studied. For example, Pugh (1966) contends that all of the studies on industrial selection have "contributed little more to the understanding of human behavior than a series of (usually modest) validity coefficients." Pugh credits the individual theorists for being the only ones who have tackled the problem of the validity of data, but he also contends that their emphasis upon a "factorial-statistical" approach has usually resulted in a theoretically arid formulation.

Another limitation of the traditional individual approach is that many attempts to improve performance of individuals do not take the organizational context into full account. Personnel selection again provides an illustration. Selection procedures are desired so that an organization can be composed of the most adequate individuals. Yet one can conceive of a highly adequate person in an organizational setting where his own adequacy is relatively independent of organizational effectiveness. Conversely, a highly effective organization could conceivably be composed of only average persons. Although the adequacy of each individual is important, the operational processes characteristic of the particular organization and the ways in which members' activities are integrated and coordinated can be equally critical.

At present, this traditional approach to individual effectiveness appears to be embarking on a new stage of development. Over the past decade, there has developed a growing body of data concerned with motivation and its more complex relationships with performance. Motivation has, of course, been recognized in industrial psychology for a long time. However, it is only recently that psychologists have produced genuinely sophisticated studies and theories concerned specifically with the composition of those motives most relevant to performance within organizations (Gellerman, 1963). For example, it has been shown that job satisfaction and productivity are not necessarily complementary (Brayfield and Crockett, 1955; Kahn, 1960). This was puzzling for a while until Herzberg, Mausner, and Snyderman (1959) demonstrated that job satisfaction itself is not a unitary concept and that certain conditions at work only prevent losses in morale but do not push toward greater motivation, while others exert strong uplifting effects upon attitudes or performance.

These developments in the study of motivation offer much promise for improved understanding of organizational behavior. Although still concerned with the effects of motivation upon the performance of individuals, most theorists give full recognition to the influence of organizational conditions upon motivation and, more important, to the effects of social motivation upon group and organizational performance.

Whereas the approach just described has focused mainly upon fitting man to the organization, another approach is more concerned with fitting the organization to man. In one way or another, theorists of the second approach see the basic problem as a conflict between the psychological needs of individuals and the formal requirements of organizations as posited by the structural theorists.

By far the most clear in his conceptualizations is Argyris (1957, 1962), who has built a complete system around the notion of the basic incompatibility of the individual and the organization. According to Argyris, this incompatibility results in frustration which can be inferred from "pathological behaviors" and "defense mechanisms" exhibited by many individuals employed in organizations.

In his earlier work (1957), Argyris was mainly concerned with effects upon lower-level personnel, and his solutions involved restructuring organizations toward greater decentralization and enlarging jobs so that "self-actualization" would have more chance to blossom. In later work (1962), Argyris has addressed himself to the problems of executives, and he advocates modification of impersonal value systems and the development of "authentic" relationships.

Although he started from a somewhat different position, McGregor (1960) based his analysis upon the same essential conflict as Argyris. McGregor began with recognition that "if there is a single assumption which pervades conventional organizational theory it is that authority is the central, indispensable means for managerial control" (1960, p. 18). McGregor then proceeded to his now-famous comparison between "Theory X" and "Theory Y." He attempted to show the limitations of authority based on role or status (Theory X) as compared with authority based on objectives, i.e., task or goal requirements (Theory Y). McGregor stressed the integration of task requirements with individual needs. However, where Argyris advocated restructuring job and organization, McGregor recognized that leadership is the means whereby the demands of the individual and the requirements of the organization can be reconciled. For him, leadership is "the creation of conditions such that members of the organization can achieve their goals *best* by directing their efforts toward the success of the enterprise" (1960, p. 49).

Several other writers (Blake and Mouton, 1964; Shepard, 1965) have stressed the importance of organizational leadership as the main integrating factor. In their view, if leaders see their organizations as organic rather than mechanistic, as adaptable rather than bounded by rigid structure, emphasis will shift from arbitration to problem solving, from delegated to shared responsibility, and from centralized to decentralized authority. Thus the needs of individuals and requirements of organizations will be reconciled.

This second approach of the Individual Theorists is important because it focuses attention upon internal processes and the ways in which human components affect them. Effectiveness within an organization requires trading and negotiation by all participants. The extent to which problems are solved and objectives are accomplished is strongly determined by the degree of accommodation that can be achieved.

As a final point, it should be noted that all of the approaches mentioned in relation to both group and individual theories tend to emphasize interpersonal and group variables as causal factors in organizational effectiveness and tend to deemphasize the cognitive processes of problem solving as equally important determinants.

DECISION THEORIES

Whereas group and individual theorists have tended to play down cognitive processes, other writers have focused squarely upon problem solving and decision making as controlling factors in organizational effectiveness. Although the study of decision making, particularly that performed by individuals, is a relatively independent area of research, it has made a significant contribution to the theory of organizations.

Theories of organizational decision making have their origin in economic theories of consumers' choice (Edwards, 1954). Classical economic theory started from an assumption that man is entirely rational in his choices. Economic man was presumed to be completely informed, infinitely sensitive, and totally rational. In his decisions, not only were the alternatives in the choice known but also each alternative was known to lead to a specific outcome. Thus classical economic theory was essentially one of decision under conditions of absolute certainty (Taylor, 1965). .

Classical decision theory has undergone numerous modifications, the most notable of which occurred with the advent of game theory (von Neumann and Morgenstern, 1944). Game theory recognizes the concept of decision under uncertainty or risk; however, it still rests upon the assumption of rationality. Furthermore, game theory remains a theory of decision making by individuals.

A decision made by an individual in isolation is one thing, but that made by him in an organization is another. In the latter case, the considerations to be taken into account become much more complex. A landmark in the development of theories of decision making in organizations was Simon's book, *Administrative Behavior: A Study of Decision-Making Processes in Administrative Organization* (1947). Simon retained the idea that decision behavior within organizations is "intendedly rational" and that decisions are made by individuals within organizations and not by organizations as entities. However, he also recognized the inadequacy of classical economic theory for understanding behavior within organizations. Accordingly, he distinguished between the roles of facts and of values in decision making. Questions of value are questions of what *ought* to be. Simon contended that decision makers employ values as well as facts in making choices. Limits upon rationality in decision making are imposed by lack of all the possible facts. Therefore, in Simon's view (1957a, p. 204), the decision maker must "satisfice"—find a course of action that is "good enough"—rather than maximizing returns, as would be possible if he had full knowledge of the consequences attached to every alternative.

The contrast between economic man and Simon's administrative man emphasizes an important point. Rationality is central to behavior within an organization. However, if the members of an organization were individuals capable of the kind of objective rationality attributed to classical economic man, theories of organization would have no purpose. In Simon's words:

> . . .if there were no limits to human rationality, administrative theory would be barren. It would consist of the single precept: always select that alternative, among those available, which will lead to the most complete achievement of your goals. The need for an administrative theory resides

> in the fact that there are practical limits to human rationality, and that these limits are not static, but depend upon the organizational environment in which the individual's decision takes place. The task of administration is so to design the environment that the individual will approach as close as practicable to rationality (judged in terms of the organization's goals) in his decisions (1957a, pp. 240-241).

The most significant point in the quotation is that decisions are influenced by the organizational environment. Internal relationships and operational processes can and do exert critical effects upon the nature and quality of decisions. Thus decisions can never be completely rational. This theme was expanded into a full theory of organization by March and Simon (1958).

In the classical economic theories and Simon's administrative theories, the decision maker is the individual. On the other hand, Cyert and March (1964) have recently formulated a theory of the organization as decision maker. Cyert and March build upon the classical model of rational behavior; however, they recognize an important fact. Organizations are constantly attempting to adapt to their external and internal environments, and completely rational adaptation is constrained by some fairly strong limits on the cognitive capacity, the computational speed, and the internal goal consistency of the organizations. To describe how organizations cope with these constraints, Cyert and March posit four critical modifications of the classical axioms of rationality. First is the quasi-resolution of conflict; organizations do not have a simple preference ordering of goals but instead exist with considerable conflicts of interest which are resolved either through compromise or sequential attention to goals. Second is uncertainty avoidance; organizations tend to avoid uncertainty rather than deal with it by calculations of expected returns as in economic theory. Third is problemistic search; decisions to search for solutions are dictated by the existence of problems rather than calculations of expected returns. In short, organizations search for answers only when problems arise. Fourth is organizational learning; organizations learn from their experiences and modify procedures over time.

The notion that numbers of people make decisions as a unit is not a new idea in group dynamics. However, in decision theory it is a relatively recent concept. When the temptation to anthropomorphize can be resisted, when it can be recognized that what is involved is a number of individuals arriving at joint decisions, the concept of organizational decision making provides possibilities for promising insights into some of the more complex aspects of organizational behavior. For example, the four modifications described in the discussion of Cyert and March open the door to the analysis of organization in terms of ongoing processes. Where previous theories viewed decision making in terms of essentially static models, Cyert and March see it as a dynamic process occurring in response to continuous changes in the environment and constantly modified on the basis of new information. Thus, decision making is seen as an adaptive response of the organization.

The importance of viewing decision making in terms of organizational processes cannot be overemphasized. Much of the research and theory presently existent ignores the circumstances under which the decision is made and under which the decision maker is acting. Much of the work in the field makes it appear that the specific act of choosing among alternatives is the core of the decision-making process and that prior or subsequent events need not be considered. Yet, in real organizations, the events leading to the act of choice and those following are often the more critical ones. Frequently, the outcome is foreordained by the time the act of choice is reached and, often, decisions are not implemented as intended. It begins to become clear that decision making cannot be separated from other organizational processes.

One final point remains with regard to decision theories. Just as group and individual theories overstress interpersonal and motivational factors, decision theories place primary emphasis upon rational aspects of cognition and perception. Accordingly, like the group and individual approaches, decision theories offer only partial explanations of the complex phenomena encountered in organization.

SYSTEMS THEORIES

Recently there has developed a mounting dissatisfaction with approaches which concern themselves with only limited aspects of organizational behavior. A number of writers have concluded that such approaches leave some of the most critical aspects of organizational functioning untouched. For example, Bennis contends that "the main challenge confronting today's organization. . .is that of responding to changing conditions and adapting to external stress" (1966, p. 44).

In a similar vein, Selznick also concludes:

> The aims of large organizations are often very broad. A certain vagueness must be accepted because it is difficult to foresee whether more specific goals will be realistic or wise. This situation presents the leader with one of his most difficult but indispensable tasks. *He must specify and recast the general aims of his organization* so as to adapt them without serious corruption to the requirements of institutional survival (1957, p. 66).

Bennis (1966, pp. 34-36) is the most articulate critic of the more customary ways of approaching organizations. He contends that the traditional approaches are "out of joint" with the emerging view of organizations as adaptive, problem-solving systems and that conventional criteria of effectiveness are not sensitive to the critical needs of the organization to cope with external stress and change. According to Bennis, the present methods of evaluating effectiveness provide static indicators of certain output characteristics (performance and satisfaction) without revealing the processes by which the organization searches for, adapts to, and solves its changing problems. Yet without understanding of these dynamic processes of problem solving, knowledge about organizational behavior is woefully inadequate.

He concludes, ". . .the methodological rules by which the organization approaches its task and 'exchanges with its environments' are the critical determinants of organizational effectiveness" (1966, p. 47).

Bennis proposes that the major concern should be with "organizational health," defined in terms of "competence," "mastery," and "problem-solving ability," rather than "effectiveness," if "effectiveness" is considered in terms solely of final outputs. He then postulates some criteria for organizational health (1966, pp. 52-54).

1. Adaptability—which coincides with problem-solving ability, which, in turn, depends upon flexibility of the organization. Flexibility is the freedom to learn through experience, to change with changing internal and external circumstances.
2. Identity—adaptability requires that an organization "know who it is and what it is to do." It needs some clearly defined identity. Identity can be examined in two ways: by determining to what extent the organizational goals are understood and accepted by the personnel; and by ascertaining to what extent the organization is perceived veridically by the personnel.
3. Reality-testing—the organization must develop adequate techniques for determining the "real properties" of the environment in which it exists. The "psychological field" of the organization contains two main boundaries, the internal organization and the boundaries with the external environment. Accurate sensing of the field is essential before adaptation can occur.

Thus Bennis views an organization as an adaptive organism, and he contends that the processes through which adaptation occurs are the proper focus of analysis.

A few other writers have recognized the potentiality of studying the problem-solving processes used by an organization. For one, Altman states:

> Performance effectiveness should be viewed from a much larger perspective, to include so-called "process variables" as intrinsic antecedents of performance outputs. Thus we reject the approach to small group performance or organizational performance solely from a "black box" point of view, but propose instead a strategy of research that peers into the box and attempts to understand the sequential development of performance as it progresses from input to output (1966, p. 84).

Schein (1965) goes beyond Altman and suggests an actual sequence of activities or processes used by organizations in adapting to changes in the environment. Schein calls this sequence an *adaptive-coping cycle*. The stages of the adaptive-coping cycle are as follows:

1. Sensing a change in the internal or external environment.
2. Importing the relevant information about the change into those parts of the organization which can act upon it.
3. Changing production or conversion processes inside the organization according to the information obtained.
4. Stabilizing internal changes while reducing or managing undesired by-products (undesired changes in related systems which have resulted from the desired changes).
5. Exporting new products, services, and so on, which are more in line with the originally perceived changes in the environment.
6. Obtaining feedback on the success of the change through further sensing of the state of the external environment and the degree of integration of the internal environment. . . .(1965, pp. 98-99).

Schein's adaptive-coping cycle makes it possible to identify more precisely those processes where performance may be inadequate and to specify more accurately the relative contribution of each process to overall effectiveness.

In their search for a schema which will encompass the many varied aspects of organizations, Bennis (1966), Schein (1965), and a number of other writers have turned to General Systems Theory (von Bertalanffy, 1956). In systems theory, an organization is viewed as existing in an environment with which there are more or less continuous interchanges. As a system, the organization is regarded as having inputs (resources such as material, people, and information) on which it operates a conversion process (throughput) to produce outputs (products, services, etc.). Both the inputs and outputs must take account of environmental changes and demands (Emory and Trist, 1965).

The organization simultaneously engages in two general kinds of processes: (1) those concerned with adaptation to the environment; and (2) those concerned with internal development and execution. Thus it uses its internal processes and energies to continually react to changes in its environment in order to maintain equilibrium with it.

Of particular interest to organization theorists is the concept of equifinality. According to this principle, a system can reach the same final state from different initial conditions and by a variety of paths (Katz and Kahn, 1966). It has special significance for organizations because it points up the importance of ongoing processes adapted for specific situations as major determinants of outcomes. Whereas bureaucratic theories rely upon rules, policies, and precedents to dictate action and theories of decision rely on rationality to indicate the obvious solution, systems theory recognizes that actions are governed by dynamic processes through which problems are approached as they arise and in accordance with their particular nature.

One of the most fully developed approaches is that of Parsons (1960). According to Parsons, all organizations must solve four basic problems:

1. Adaptation: the accommodation of the system to the reality demands of the environment and the actual modification of the external situation. Each organization must have structures and processes that will enable it to adapt to its environment and mobilize the necessary resources to overcome changes in the environment.
2. Goal achievement: the defining of objectives and the attaining of them. Processes are required for implementing goals, to include methods for specifying objectives, mobilizing resources, etc.
3. Integration: establishing and developing a structure of relationships among the members that will unify them and integrate their actions. The organization must develop processes aimed at commanding the loyalties of its members, motivating them, and coordinating their efforts.
4. Latency: maintenance of the organization's motivational and normative patterns over time. Consensus must be promoted on values that define and legitimatize the organization's goals and performance standards.

Parsons applies his theory to all types of social phenomena. Probably because of his interest in a theory of general social systems, he paints his analysis of formal organizations with a fairly broad brush. However, Katz and Kahn (1966) have built upon Parsons' work, together with that of Allport (1962) and Miller (1955), to develop a comprehensive, wide-ranging theory of organizations which is solidly within the systems theory tradition. Katz and Kahn attempt nothing less than a complete explanation of organizational behavior with systems theory concepts. Although certain aspects of organizations require a little forcing to fit systems concepts, the attempt seems reasonably successful in putting into proper perspective such ideas as interchange with environments, operation by process instead of procedure, and the interrelationships among functional units.

Systems theory embraces a much more comprehensive set of concepts than is possible to describe here. Accordingly, an outline provided by Schein (1965, p. 95) will serve to summarize those ideas which have the most relevance for this discussion:

1. . . .the organization must be conceived of as an open system, which means that it is in constant interaction, taking in raw materials, people, energy, and information, and transforming or converting these into products and services which are exported in the environment.

2. . . .the organization must be conceived of as a system with multiple purposes or functions which involve multiple interactions between the organization and its environment. Many of the activities of subsystems within the organization cannot be understood without considering these multiple interactions and functions.
3. . . .the organization consists of many subsystems which are in dynamic interaction with one another. Instead of analyzing organizational phenomena in terms of individual behavior, it is becoming increasingly important to analyze the behavior of such subsystems, whether they be conceived in terms of groups, roles, or some other concept.
4. . . .because the subsystems are mutually dependent, changes in one subsystem are likely to affect the behavior of other subsystems.
5. . . .the organization exists in a dynamic environment which consists of other systems, some larger, some smaller than the organization. The environment places demands upon and constrains the organization in various ways. The total functioning of the organization cannot be understood, therefore, without explicit consideration of these environmental demands and constraints.
6. . . .the multiple links between the organization and its environment make it difficult to specify clearly the boundaries of any given organization. Ultimately, a concept of organization is perhaps better given in terms of the stable *processes* of import, conversion, and export, rather than characteristics such as size, shape, function, or structure.

The swing to a process emphasis by such respected theorists as Bennis, Parsons, and Selznick signals a significant new development in ways of thinking about organizations. Where previously attention was mainly focused upon the invariant aspects of organizations—the unchanging aspects of structures, policies, and procedures—there has now been recognition that the variant aspects may be the real key to understanding and controlling performan

Thus it has finally become apparent that, with organizations as with people, it is plainly necessary to focus attention on dynamics. Since an organization is an adaptive equilibrium-seeking organism, the processes through which adaptation occurs are a significant subject of analysis. It is, therefore, important to learn precisely how these processes affect and contribute to performance. It is equally important to understand what factors influence functioning of the organizational processes and what human variables determine, in a particular organization, whether the processes can resist disruption under pressures arising from the stresses of daily operations.

CRITICAL CONCEPTS

Efforts to formulate general theories of organization have not as yet been outstandingly successful in producing firm and significant explanations of why some organizations are more successful than others in generating effective performance among personnel. The principal contributions thus far have been the development of more sophisticated language and concepts, descriptions of some of the more formal properties of organizations, and identification of many probable determinants of behavior within organizations. Nevertheless, some generalizations can be formulated concerning the behavior of organizational members (March and Simon, 1958), and there are many suggestive discussions and findings.

The following discussion of factors which appear to be relevant for social welfare and rehabilitation organizations is an attempt to integrate and summarize clues and hints accumulated from many sources.

ORGANIZATIONAL STRUCTURE

In the beginning, it should be emphasized that one of the principal reasons for the present unclear state of knowledge about organizations is the lack of common definitions of concepts. The term "structure" is an outstanding example of the problem. Depending upon the orientation of the researcher or theorist, studies of structure have encompassed most of the factors connected with organizations. Thus, even in those approaches which are limited to the more formal aspects of organizations, the rubric "structure" has encompassed such concepts as complexity, formalization, specialization, size, standardization, configuration, tall vs. flat hierarchies, vertical span-of-control vs. lateral span-of-control, and flexibility.

Researchers concerned with the effects of structure upon performance seem to be rather cleanly divided into two camps, most clearly defined in terms of their views of what should be the focus of concern in organizational studies. One group prefers to limit structural concepts to those which are closely tied to the allocation of responsibility or function and to forms of organization which result therefrom—to the organization chart and its implications for authority and responsibility.

Representative of this group are Pugh and his associates (Pugh et al., 1968), who have identified six primary dimensions of organizational structure: (1) specialization; (2) standardization; (3) formalization; (4) centralization; (5) configuration; and (6) flexibility. These researchers have then proceeded to translate the concepts into operational definitions and to develop scales to measure them. The concepts and approach used by Pugh and his associates have clear and significant implications for both conceptualization and research methodology.

A major difficulty with an approach which limits conceptions of structure to the formal aspects is that, taken alone, formal structure may be a second-order variable when its effects upon employees are considered. At least two studies (Meltzer and Salter, 1962; Porter and Lawler, 1965) have cast doubts upon the direct effects of formal structure upon employee motivation and satisfaction. The effects of structure seem to be analogous to the effects of birth order upon personality development. When the effects of birth order are studied in conjunction with parental practices, the former disappear. Parental practices account for most of the variance in personality development regardless of birth order. In the same way, the effects of formal structure upon motivation and satisfaction often disappear when structure is studied in conjunction with organizational climate, especially supervisory practices.

For this reason, among others, a second group of researchers have preferred to extend their concepts to include such dimensions as, in addition to formal structure, power structure, communications structure, prestige or status structure, functional (contact) structure, and spatial structure (Baumgartel and Mann, 1962). This second approach has potential for accounting for more of the variance in employee motivation and satisfaction and has been embraced to one degree or another by several of the more renowned theorists of a social-psychological persuasion (Katz and Kahn, 1966; Likert, 1967).

The literature seems to make it clear that, when considered alone, certain dimensions of formal structure have demonstrable relationships to both performance and attitudes in social welfare and rehabilitation agencies. For example, consider size of the organization. A large staff usually presents greater requirements for coordination and control. More supervisors are needed with additional workers, and at some point it may become necessary to introduce a supervisor of supervisors—a division head. Direct positive relationships have been found between the number of employees and the number of vertical ranks in welfare agencies (Thomas, 1959). An additional effect is likely to be specialization of activities and roles. Thus, coupled with size is another critical dimension—organizational complexity.

One of the major effects of increased size and complexity is that communication becomes more difficult and more formal. In a small, less complex agency, workers usually have direct access to each other and to supervisors. In larger agencies, communication by memorandum and directive supplants personal contacts, especially between executive and practitioner.

Increases in the number of administrative levels and in highly specialized roles also lead to more routinized or standardized procedures. Manuals and multiple staff conferences replace personal contacts and individualized handling of cases.

Accordingly, the larger agency is a different place to work in than the smaller one and may produce less satisfying work conditions, different staff role perceptions, and therefore lowered or different quality of performance (Thomas, 1959). There also seems to be more consensus, greater cohesion, and more commitment to ethics of social work and to effective performance in smaller agencies.

However, it should be strongly emphasized that it cannot be concluded that a smaller organization always results in greater satisfaction and performance. As stated earlier, many of the effects of formal structure may be reduced by the kind of climate existing within the organization. Thus a large, complex organization could possess a climate that is highly conducive to satisfaction and performance. Similarly the climate of a small organization might be destructive for either.

Among formal structural variables, the level which an employee occupies and size of work group appear to have the strongest relationships to attitudes and behavior. Height of level within the organization and status of job are positively related to both employee need satisfaction and feelings of necessity for self-direction. Size of work unit is negatively related to job satisfaction; i.e., greater satisfaction occurs in smaller groups. On the other hand, absenteeism and turnover occur most often in larger work groups.

Although relationships to satisfaction or performance have sometimes been found for tallness-flatness of the structure, results have been mixed. Therefore it is not at all clear at present whether a flat structure is always associated with greater employee satisfaction and performance. As with other structural factors, it is likely that the climate within the organization may overshadow effects of tallness or flatness.

Two factors—span-of-control and centralization-decentralization—have not generally been found to be related to either attitudes or behavior. However, it should be emphasized that only a very little research has been performed with these variables. It should also be pointed out that, especially with regard to centralization, results will be determined by definition. Thus, if the lowering of decision levels advocated by Likert (1967) is deemed to be structural decentralization, much research becomes available demonstrating increase in satisfaction when such decentralization occurs.

In general, the impact of formal structural variables appears to be greater upon attitudes than upon behavior. However, much more effort has been expended on study of effects upon attitudes than upon behavior. With regard to behavior, formal structure seems to influence absenteeism and turnover more than it affects employee output.

Evidence is mounting that the effects of power (Coser, 1958), status (Zander, Cohen, and Stotland, 1957), functional (Cloward, 1956; Ohlin, 1958), and communications (Vinter, 1967) structures may be more relevant for social welfare and rehabilitation workers than those aspects related to the formal design of the organization (Hage and Aiken, 1967; Thomas, 1959).

The power structure is concerned with the sources and networks of influence in an organization. Although power may parallel the formal structure as shown on an organization chart, there may be wide discrepancies in many agencies. The extent to which power is diffused within an organization or the degree to which it is hoarded in central positions can have significant effects upon employee attitudes and performance. In particular, the way that influence is distributed or withheld among professional workers is a critical factor in social welfare and rehabilitation agencies.

Status is the ascribed valuation of individuals by members of the organization. Costello and Zalkind (1963) suggest that judgments made by an individual about interacting with another are influenced by a number of properties of the other person, including perceived status and perceived role. A status structure that limits or strictly defines appropriate behaviors—e.g., formality of relationships between supervisors or subordinates—might therefore suppress the degree of informal coordination occurring within the organization. In social welfare and rehabilitation agencies with both professional and nonprofessional employees, status can be a very ticklish matter and may exert significant effects upon both attitudes and performance.

The functional structure is defined formally by the organization chart but behaviorally by who does what and works with whom. Formalized assignments of duties often fail to recognize some necessary coordination functions and frequently do not cover many of the actual working relationships that develop. Here the problem is to identify the degree of connectedness (total coordination) required for effective functioning and to determine the extent to which essential coordination occurs beyond that dictated by the organization chart.

ORGANIZATIONAL CLIMATE

Like structure, the concept of "climate" raises problems of definition. Thus, conceptualizations of climate have ranged from McGregor's (1960) discussion of climate in terms of leader behavior, through Bowers' (1969) definition of climate as the accumulated effects of the behavior of superior organizational levels, to definitions in terms of organizational characteristics such as authority (Barnes, 1960), social relations (Blau, 1954), management policies (Stanton, 1960), and autonomy (Dill, 1958). Finally, Forehand and Gilmer (1964) have defined climate as the totality of characteristics that describe an organization, to include size, structure, complexity, leadership style, and goal definitions. It is obvious that the directions taken in both research and management will be closely determined by the way in which climate is conceived.

For this paper, "climate" will refer to the so-called "atmosphere" within an organization, those properties which reflect the internal state and characteristic ways of working. For social welfare and rehabilitation agencies, climate includes such factors as organizational goals (Peabody, 1964), leadership practices (Wilensky and Lebeaux, 1958), group relations (Blau, 1954), policies (Vinter, 1967), and autonomy (Cruser, 1958; Lindenberg, 1957). It is also possible to include style of decision making (individual or group) and ways of exercising control.

It is evident that climate possesses potential for significant effects upon workers and worker performance. For example, Forehand and Gilmer (1964) contend that climate can affect behavior by (1) defining stimuli which confront an individual, (2) placing constraints upon the freedom of choice of behavior, and (3) rewarding or punishing behaviors. For all of these categories, Forehand and Gilmer cite examples of the effects upon behavior.

The greatest weight of findings in this area is in the direction of conditions which encourage greater self-actualization. Thus, in general, organizational conditions which provide emotional security, knowledge of requirements and performance standards, and optimum independence for employees seem to lead to greater satisfaction, more positive attitudes, and loyalty to the organization. However, some evidence suggests that this general finding may be more true for white-collar than for blue-collar workers and, within white-collar ranks, more for professionals than for clerical personnel.

It appears that organizational climate has particular significance for social welfare and rehabilitation workers. The professionalization of workers, the need for professional stimulation, difficulties in providing clear-cut standards for quality of performance, these and other factors inherent in social and rehabilitation work make climate a critical ingredient in worker isfaction and performance (Scott, 1965). Thus, the worker's preference for discharging his professional function through a definite and circumscribed role may or may not agree with an agency's policy concerning the assignment of activities among personnel and may create a variety of confusions and conflicts for the worker (Loewenberg, 1968). The professional value of dedicated, selfless service may come into conflict with an agency policy concerning the limitation on services to be provided. Social workers tend to concentrate in agencies whose climates are most compatible with professional values and standards and to avoid those where major incongruities exist.

Three components of climate which exert extremely potent effects and which are especially relevant for social welfare and rehabilitation organizations will be discussed separately. The components are organizational goals, group relations, and leadership.

Organizational Goals

Organizations face the problems of accomplishing their missions and of adjusting to environmental changes without losing their basic characters and distinctive capabilities. On the one hand, if goals around which the activities are mobilized are retained despite environmental change, there may be losses and inefficiencies, or even threats to survival. On the other hand, if goals are changed frequently, there is the risk of members losing sight of the principal mission of the organization (Katz and Kahn, 1966). Peabody (1964, pp. 66-68) cites an example of how conflicts about goals resulted in differences in performance among social workers with regard to whether emphasis was placed upon service to clients or upon financial assistance.

The relevance of organizational goals has been emphasized by such theorists as Likert (1961), March and Simon (1958), and Cyert and March (1959). The importance of goals lies in the necessity for the efficient conduct of complex organizational activities and for keeping activities on the track. Thus, March and Simon have stressed the importance of clear operational goals. They argue that where there are shared goals, there is less likelihood of conflicting actions by members, and differences about actions to be taken are more likely to be resolved by rational analytic processes. Where goals are clear, operational, and shared, there is less differential perception of the optimal courses of action. Despite this emphasis, however, there is evidence of wide differences in the degree to which organizations rely on goals (Selznick, 1957) and of concomitant variations in the degree to which there is conflict arising from uncertainty about goals (March and Simon, 1958).

The most notable effect of goals may be with regard to the extent to which personnel internalize them and thus activate behavior not prescribed by specific roles (Katz and Kahn, 1966). The motivation to achieve organizational goals stems from the individual's involvement with them (Likert, 1961), which in turn derives from his identification with the organization (Katz and Kahn, 1966).

When goals are clear and shared, and when personnel are emotionally involved in their achievement, conflicts, false starts, cross-purposes, and wasted effort are reduced. The overall objectives of the organization, the goals of subordinate units, and those of individuals will be in general harmony, and all will be aimed toward accomplishing the mission of the organization. This should result in more efficient functioning of all organizational processes. Ideally there will be a more efficient flow of communication and influence through the organization, which should therefore result in relevant information reaching points where decisions can best be made. As a consequence, sound decisions can be made on the basis of more adequate facts, and actions can be more suited to situational requirements. In addition, relevant parts of the organization should be more promptly aware of problems and be able to deal with them rapidly and effectively.

Group Relations

One of the few areas besides leadership that has been investigated with any degree of thoroughness is the effects of group properties upon performance. Much of this work has been summarized by Likert (1961, 1967).

When organizational incumbents work together over time, norms, status structures, and patterns of interaction develop. These group attributes exert lasting influence upon the ways members go about their tasks and the levels of motivation that are achieved. The development of such properties is most pronounced in the small, face-to-face primary groups. However, there is considerable evidence that, even at levels above the basic work unit, there exists e potential for the development of group properties. Thus, Likert (1961) considers the development of group properties to be especially desirable among those individuals who "link" the various levels and groups within the larger organization. "Linking functions" are performed by individuals occupying the formal leadership or supervisory positions.

Group relations influence execution of activities in at least two ways. First, group relationships influence the motivation of members to perform the activities. Among the properties of groups that may serve a motivating function are cohesiveness (Likert, 1961); congruence of attitudes (Blau and Scott, 1962); atmosphere of security and evaluation standards (Blau, 1954). As one example of the motivational effects of group properties, Blau (1954) found that competitiveness among members varied with these properties and was manifested most strongly in the hoarding of information. Similar information-withholding practices have been noted by Argyris (1962). Second, group relations determine the extent to which members develop shared perspectives concerning organizational problems and expectations.

Group relationships and their effects have been studied and discussed to such an extent that they need no further elaboration here (see Likert, 1961; Golembiewski, 1965). Suffice it to say that both intergroup and intragroup relationships are critical to the motivations, attitudes, and performance of members of any organization. They are equally critical to social welfare and rehabilitation workers.

Leadership

All organizations endeavor to enforce dependable role behavior, but organizations differ markedly in the extent to which they do this successfully and in the way it is accomplished. Most of the variation occurs because of differences in leadership or supervisory practices.

Leadership is one of the most widely discussed areas in organizational psychology (Dubin et al., 1965; Gibb, 1969; McGregor, 1960, 1967; Likert, 1961; Schein, 1965). Yet surprisingly little has been accomplished within the specific context of social welfare and rehabilitation work. Many of the problems and contradictions which have been raised with regard to other types of organization apply equally to social welfare and rehabilitation workers. As just one example, one of the most intensively studied hypotheses concerning organizational leadership climate states, "An organization in which influence practices are participative, democratic, and unstructured will differ from one whose practices are nonparticipative, authoritarian, or structured." The prediction has been that productivity and satisfaction would be higher in the first type of organization. Evidence to support this hypothesis has been summarized by Likert (1961). However, there is other evidence that the hypothesis may hold for satisfaction but not for productivity (Blau and Scott, 1962; Morse and Reimer, 1956). There is also evidence that it may be true for some jobs or parts of an organization but not for others (Leavitt, 1962).

The above issue has direct relevance for social welfare and rehabilitation workers because of the high emphasis upon professional ethics, standards, and practices. In this work, much of the power of a supervisor accrues from the informational vantage point provided by the position and from whatever special expertise is possessed, as well as from the authority to make decisions, control rewards, and evaluate performance. On the other hand, professional workers take pride in their technical skills and prefer initiative and self-direction to close control and direction from supervisors.

Strain may arise from conflicts between the organization's need for supervisory control and the nonauthoritarian ideology characteristic of social work. This ideology, when coupled with the necessity for professional workers to make technical decisions in the course of their work, can result in a significant downward shift in the level of decision-making power in the organization. If a supervisor views this downward shifting of power as reducing his effective authority, he may encounter serious role conflicts. Under such conditions, the caliber of supervisory leadership that is available may be a critical determinant of both performance and satisfaction.

As stated earlier, research on leadership specific to social welfare and rehabilitation agencies is in short supply. However, a recent study (Aiken et al., 1970) has shown that, for rehabilitation counselors, the most important aspect of employment in state rehabilitation agencies is the interpersonal relationship between supervisor and counselor. In this study, behavior of supervisors was a far more important consideration in worker satisfaction than working conditions or the reward system of the agency.

Thus supervisory leadership is a critical determinant in the satisfaction and performance of social welfare and rehabilitation workers, and this factor appears to warrant much more research and management attention than it has received.

ROLES

In any organization, there must be dependable activity; the great potential variability in human behavior must be reduced to a limited number of predictable patterns. In short, the assigned roles must be executed in ways that meet some standard of quantity and quality.

The concept of role appears to be a major means for explaining individual behavior in organizations and for linking such behavior to organizational performance. Roles are at once the building blocks of social systems and the frameworks of requirements with which such systems control their members. Each person in an organization is linked to other members by the functional requirements of his role, which are implemented through the expectations those members have of him. He is the occupant of that role, and an organization consists of a number of such roles, one or more for each person in the organization. It is important to stress that roles are ideational; i.e., they are ideas about how behavior ought to occur rather than being the actual behavior.

The efficient functioning of organizational processes appears to be determined in large part by the role perceptions of individuals in key positions. The problem-solving, decision-making, and adapting processes are affected by the extent to which there are clear, accurate, and shared perceptions of role requirements by all members of the organization.

In particular, complications may arise in connection with *role conflict* and *role ambiguity* (Kahn et al., 1964). Role conflict occurs within the occupant of a position when he receives contradictory externally sent role expectations from the occupants of two or more other positions. It may also be generated by a conflicting combination of externally sent expectations and the perceptions of his role held by the occupant. When either of such conflicts occurs, the individual may be unable to perform his functions in coordination with the similar functions of other personnel. For social welfare and rehabilitation workers, an especially intense type of role conflict may arise from discrepancies between an agency's limited service goals and the worker's relatively unlimited commitment to service to clients.

Data from a national survey indicate that role ambiguity is a source of difficulty for a substantial number of people (Kahn et al., 1964). Role ambiguity is a direct function of the discrepancy between the information available to a person and that which is required for adequate performance of his role. One of the greatest problems in effective role performance lies in the person's inability to anticipate clearly the consequences of his own acts. Clarity and predictability are required for effective performance. Yet in complex social systems, despite their characteristic emphasis upon authority and procedures, clarity and predictability are often difficult to achieve.

For social welfare and rehabilitation workers, ambiguity occurs most frequently in connection with those roles involved in execution of their professional functions. In the course of processing information, solving problems, making decisions, and implementing decisions, clear standards for appropriate actions are frequently not available. Accordingly, ambiguity may lead to inappropriate, inadequate, or insufficient action. Ambiguity thus poses a difficult problem for both the individual and the organization.

NORMS

An often neglected set of requirements in organizations includes those actions not specified by role prescriptions but which facilitate the accomplishment of organizational goals. The organizational need for actions of a relatively spontaneous sort is inevitable. Planning, procedures, and role prescriptions cannot foresee all contingencies and cannot anticipate all environmental changes. The resources of personnel for innovating and for spontaneous cooperation are thus vital to effective functioning. However, this spontaneous behavior requires some control which cannot be provided by the more formal role prescriptions. Norms serve this function.

Norms are attitudes and codes of behavior held in common by all, or most, of the members. When well developed, this superstructure of customs, standards, and values regulates the behavior of members and provides them with bases for evaluating nonroutine situations and for governing their actions in such situations.

The ways in which norms influence workers are numerous. However, it is evident that the patterned activities which make up organizational behavior are so intrinsically cooperative and interrelated that the kinds of norms which develop must inevitably influence their functioning. This influence will probably be in terms of the extent to which members execute their functions above and beyond the minimal limits set forth in formal role prescriptions.

The potential of norms for influencing both attitudes and performance cannot be overemphasized. Accordingly, both management and supervisors are well advised to develop sensitivity to the norms existing within their organizations and to take them into account in decisions and actions. When diagnosed accurately, norms can be used for constructive support in obtaining desired results. When ignored, they can be serious impediments to effective action.

IMPLICATIONS FOR RESEARCH

Research concerned with factors that influence performance in social welfare and rehabilitation agencies is in its infancy. The fact is that only a handful of studies that directly attack such problems have been performed. In one sense, this may be a good thing. Because theory and research in this field have come so late, it should be possible to avoid many of the pitfalls encountered by earlier researchers in other types of organizations.

One reason for the notable lack of success in formulating useful findings about organizations is that most studies have been descriptive accounts of relatively static situations. For the most part, the practice has been to develop broad generalizations based either on the experience and insights of the theorist or on descriptive one-case analyses of single organizations. There has been very little systematic, comparative study of causal relationships.

Another, and probably equally important, reason for the lack of progress is that until recently, researchers have concerned themselves with relatively small and often unrelated segments of the overall problems. This was suggested by March and Simon (1958, p. 6) when they pointed out that most propositions about organizational behavior can be grouped in three broad categories:

1. Propositions assuming that organization members, and particularly employees, are primarily *passive instruments*, capable of performing work and accepting directions, but not initiating action or exerting influence in any significant way.
2. Propositions assuming that members bring to their organizations *attitudes, values,* and *goals;* that they have to be motivated or induced

to participate in the system of organization behavior; that there is incomplete parallelism between their personal goals and organizational goals; and that actual or potential goal conflicts make power phenomena, attitudes, and morale centrally important in the explanation of organizational behavior.

3. Propositions assuming that organization members are *decision makers* and *problem solvers*, and that perception and thought processes are central to the explanation of behavior in organizations.

It should be noted that Category 1 encompasses the bureaucratic theories, as well as the many other theories and propositions concerned with structures, procedures, policies, and other formal aspects of organizations. Category 2 summarizes a large number of studies in psychology and sociology that have stressed the nonrational forces at work in organizations that are committed to operating on the basis of rationality and discipline, to include the group and individual theories discussed earlier. Category 3 includes decision theories and covers those studies devoted to the analysis of strategies and choice.

As March and Simon make clear, there is nothing contradictory about these three sets of propositions. Organizations involve all of these things. However, this is precisely the problem with many organizational studies. Whereas an adequate explanation of organizational behavior will have to take account of the structural aspects, the motivational and attitudinal aspects, and the rational aspects, most researchers and theorists have focused on only those partial elements that seemed particularly significant for their interests. The result has been, to say the least, an imperfect picture of organizational behavior.

This result suggests that present ways of thinking about organizations may be seriously inadequate. Bennis makes this same point when he concludes:

> It is no longer adequate to perceive organization as an analog to the machine as Max Weber indicated. . . . Nor is it reasonable to view the organization solely in terms of the socio-psychological characteristics of the persons involved at work, a viewpoint that has been so fashionable of late. Rather, the approach that should be taken is that. . .organizations are to be viewed as "open systems" defined by their primary task or mission and encountering boundary conditions that are rapidly changing their characteristics (1966, p. 46).

It is apparent that the emphasis upon process has come mainly from theorists rather than researchers. This is understandable since processes are not as amenable to the segmentation characteristic of most research efforts. In order to gain control over the phenomena under examination, researchers are prone to break large problems into small parts which can be studied separately. Yet the complex interactions between processes do not permit this to be done readily.

Probably a more significant reason for the dearth of research on organizational processes is that many of these processes appear to be mediating variables between inputs and outputs. Situations involving mediating variables are, of course, more difficult to analyze than the simpler independent variable/dependent variable relationships typical of most studies.

The conventional study attempts to treat some single dimension, such as cohesiveness or leadership, as a predictor variable and then examines the relationship of this factor to some criterion, such as organizational performance or employee satisfaction. Performance and satisfaction are the dependent variables. Although most of the studies concerned with social-psychological variables have been of this sort, findings have not been sufficiently consistent to demonstrate clear-cut relationships. The reason may be that the studies have been too simply conceived.

However, when the problem is broadened to include mediating variables, more facets become clear. In social welfare and rehabilitation agencies, there appear to be three broad classes of variables which must be studied simultaneously if useful knowledge is to be obtained. The classes are: (1) impact variables; (2) mediating variables; and (3) dependent variables.

Impact variables are those factors which could be classed as input, predictor, or independent variables. They are those factors within the organization which can be changed or manipulated through management decision, training, or other actions of organizational representatives and thus impact upon or influence the other classes of variables.

Within the broad class of impact variables, there are two major types: (a) factors more or less related to one of the structures of the organization—formal, power, communications, status, and functional structures; (b) factors contributing to organizational climate. Climate consists of those factors which reflect the internal state and characteristic ways of working of organizations.

Mediating variables are those attitudes, perceptions, and motivations of personnel which affect performance and employee satisfaction. Included are professional and work attitudes and values, roles and role perceptions, performance goals of workers, motivations, and organizational loyalties.

Dependent variables are the various aspects of employee performance and job satisfaction, considered as two more or less independent factors.

Figure 1 shows each class of variables and their component factors.

The dependent variables (performance and satisfaction) are largely influenced by the mediating variables. Other things, such as ability and training, being equal, if the mediating factors are favorable, worker performance and satisfaction should be higher. Favorableness of the mediating variables, in turn, will be affected by impact variables—structures and climate.

Genuine understanding of how organizational variables influence the performance and satisfactions of social welfare and rehabilitation workers requires simultaneous measurement of all of the factors shown in Figure 1. As will be demonstrated in the following discussion, this task is not as tremendous as it might appear at first. However, it is essential if the limitations of earlier research are to be avoided.

Figure 1

Variable Classes and Component Factors

IMPACT VARIABLES	*MEDIATING VARIABLES*	*DEPENDENT VARIABLES*
Structures:	Role perceptions	Performance:
Formal	Norms	Quality
Power	Attitudes	Quantity
Communications	Motivation	Turnover
Status	Values	Absenteeism
Functional	Goals (performance)	
	Reference groups	Satisfaction:
Climate:		
		With work
Goals (organizational)		With supervision
		With job
Policies		With other employees
Leadership		With organization
Group relations		With potential for self-actualization
Autonomy		
Decision-making practices		
Control		
Emphasis (goal vs. task)		

There are a number of possible ways for making systematic observations within organizations. One alternative is to conduct intensive, naturalistic observation of one or a few organizations (Argyris, 1958). Observation of actual ongoing activities provides a researcher with a sensitive understanding of the particular organization under study and develops quite rich clinical insight. However, the practical expense in time and personnel, as well as the difficulty in pursuing such a study with a representative sample of organizations, usually precludes use of naturalistic observation, except perhaps as a short pilot investigation preliminary to a more comprehensive study.

One infrequently used method involves experimental manipulation of certain variables within one or more organizations. For obvious reasons, it is exceedingly difficult to obtain agreement from managers for the manipulation of real-world variables. Accordingly, for most studies, this method is impractical.

A third method involves development of indices of objective properties of organizations through examinations of records, organization charts, etc., and comparing the organizations on the indices or correlating the indices with measures of other variables. Thus it is possible to begin with an abstractly defined concept and develop indices which reflect that concept. As an example, hierarchy of authority can be measured by developing such indices as ratio of supervisory to nonsupervisory personnel or number of levels in the organization. In this way, objective measures of certain concepts can be developed and, if desired, dimensions can be constructed which enable either measurement of single concepts or derivation of a profile of the organization. Such indices are most objective in connection with formal structure.

A final method involves measurement of variables through questionnaire reports of the perceptions of organizational members (Likert, 1961). This method produces indirect measures of factors in that the responses are the perceptions of personnel. However, for climate and mediating variables, the perceptions of personnel are reality insofar as they influence performance and satisfaction. Accordingly, perceptual measures are the method of choice for measuring these variables.

Therefore, through one properly constructed questionnaire, administered to all or a representative sample of employees, simultaneous measures of all climate and mediating factors, some nonformal structural factors, and employee satisfaction can be obtained. Objective indices of formal structure and employee performance obtained from records would complete the requirements for data.

Pugh and his associates (1963, 1968) have described a procedure for developing dimensions whereby an organization can be placed on a scale (e.g., 10 points) with regard to any factor. It then becomes possible to develop profiles which provide a description of the organization. The derivation of scores on the dimensions makes it possible to perform multivariate correlational analyses. This statistical method provides indices of relationships between all factors (simple correlations), "pure" indices of the contribution of each factor or cluster of factors to criteria (partial correlations), and indices of best combinations of variables for predicting criteria.

In this way, a more complete understanding of the effects of organizational factors upon social and rehabilitation workers can be obtained.

IMPLICATIONS FOR MANAGEMENT

Social and rehabilitation organizations run a wide gamut with respect to size, mission, geographical dispersion, and personnel. Therefore the nature of the specific organization will determine, in large part, the kinds of problems that are encountered by managers. The specific nature of the problems requires that managers be concerned with particular cases, with diagnosing unique situations and taking actions to improve or correct them.

Carried to the extreme, this insistence upon the specificity of problems would render hopeless any attempt to generalize about management, even at very broad levels. The saving factor is that the problems with which managers in social welfare and rehabilitation agencies must be concerned all occur in organizations. Whatever their specific nature, all such organizations possess certain common underlying properties which must and can be manipulated by managers. Regardless of the type of agency, or kind of sub-unit within an agency, a manager must make sure that objectives are established, plans are made, a structure is formed, personnel are assigned and trained, and policies and procedures are developed. Furthermore, he must establish levels of responsibility, set up mechanisms for coordination, delegate authority, direct subordinates, provide stimulation and inspiration for personnel, exercise control, maintain high levels of motivation and morale, and constantly adjust the activities of his organization to broader changes in its programs and its environments. Fulfilling these and similar responsibilities is necessary regardless of the type of organization being managed.

In this regard, it is useful to view an organization as a system. The basic notion of a system is that it is a set of interrelated parts. Also implicit in the concept is a degree of "wholeness" which makes the whole something different from, and more than, the individual units considered separately.

One of the most significant ways in which the system concept is useful to managers is in the consideration of subordinate units as parts of the system. This includes divisions, departments, sections, etc., which appear on the conventional organization chart. Also included are ad hoc committees, boards, and other groups that have official status but are frequently not shown on the chart.

Thinking of an organization as a system offers at least two benefits to managers: (1) it focuses on the relatedness of activities carried on by different individuals and units; (2) it emphasizes the fact that, to meet the particular requirements for accomplishment of the organization's goals, each sub-unit must receive as careful attention in its development as does the overall organization. This is important because each part of a system affects, and is affected by, every other part.

Therefore the essence of the manager's job is not simply the solution of individual problems in specific areas but, rather, achieving some measure of integration among the many subsystems that form the organization. A manager must be constantly concerned with how things relate to each other. He must not only try to decide on and maintain the proper balance between the segments, but he must also preserve harmony and cooperation among them.

A systems view is especially useful in approaching problems of the performance of personnel. For example, it is often customary to consider such factors as goals, morale, or communications as independent factors, each contributing to performance on the basis of direct cause-effect relationships. Thus a manager who pursues the cause-effect approach tries to find one or more factors which can be taken as "causes" of certain occurrences. He may conclude, for example, that a certain morale condition within a department is the cause of poor performance. Another man might conclude that poor communication was the cause. Any number of such factors could be cited as causes, individually or in combination, of poor performance; yet, every presumed cause can be shown to have the given effect only under certain conditions and not under others.

On the other hand, a systems view of organization recognizes the mutual dependence of various contributing factors. The formal structure affects, and is affected by, the objectives of the organization. Objectives affect, and are affected by, morale. Morale conditions affect, and are affected by, performance levels within the organization.

Thus, a change in objectives may be accompanied by changes in morale and performance; a change introduced into morale will be accompanied by changes in performance and, perhaps, in objectives. Similarly, a change introduced into the formal structure will have its effects upon objectives, morale, and performance. It is the interrelation of these elements that constitutes the total pattern of organization, which is what a manager is attempting to influence.

DEVELOPING AN ORGANIZATION AS A SYSTEM

Probably the single most significant function of a manager in a social welfare or rehabilitation agency is the development and maintenance of the organization as an integrated, viable, cohesive system of activities and relationships. Since such agencies have no products other than service, it would appear that the principal function of management is to create those conditions within the organization that will best enable the delivery of the service.

Few aspects of management are so important, yet so badly misunderstood, as the problem of organizational development. When the question of developing an organization arises, there is a tendency to think only in terms of clearly enunciated policies and procedures, well-defined responsibilities for individuals and units, and smoothly functioning channels of authority and communication. In short, there is a tendency to think solely in terms of the machinery of efficiency rather than the dynamics of effectiveness.

An organization needs a formal structure, with its concomitant procedures, in order to establish stability so that the activities of its personnel will be predictable. Thus most organizations are composed of members who occupy positions which are differentiated as to responsibility for various activities. Organization charts, procedures manuals, and directives give definition to these differentiated responsibilities and to the working relationships supposed to exist between members occupying different levels of accountability.

However, effective organizational performance is not made possible solely by definitions of authority and responsibility. Formal definitions and their accompanying procedures coordinate positions or specialized activities and not persons. The formal structure can never anticipate all the actions of individual members, and the relations outlined in an organization chart only provide a framework within which fuller and more spontaneous human behavior takes place. Limitations of ability, fluctuations in motivation, breakdowns in communication, personal conflicts, failures in coordination, and similar problems disrupt the ideal patterns of performance and relationships that are stipulated by organization charts and procedures.

Therefore, management has the job of transforming an engineered, technical arrangement of people and units into a functioning entity. A manager must know how to integrate this system of activities and relationships so that conditions are most conducive to effective performance.

Development and maintenance of an organization as a system call for a number of closely related activities by a manager. Taken together, these activities contribute to creation of a climate which will exert positive effects upon both the performance and satisfaction of personnel. The activities are:

1. Formulating objectives and a rule for the organization.
2. Developing core personnel.
3. Formulating ground rules for working.
4. Developing an effective communication system.
5. Promoting a high level of motivation.
6. Setting standards of performance.

Formulating Objectives and Roles

The necessity for careful formulation of objectives and a role for an organization has long been a fundamental concern of managers. Indeed, the necessity for clear and unequivocal objectives is so much accepted these days that their very real utility as an instrument of leadership may sometimes be overlooked. This can be unfortunate because a manager who fails to utilize objectives effectively wastes a potent tool for influencing his organization.

Objectives serve the important functions of providing an organization with direction and of mobilizing efforts around common aims. It is impossible to effectively organize the activities of numbers of people unless they have a common target or set of targets toward which they can strive, around which they can focus their efforts, and against which they can evaluate their accomplishments. Furthermore, whenever members of an organization become attached to an objective because of its significance to them, the result is a prizing of that objective for its own sake. Therefore it changes from an impersonal target to a valued source of satisfaction. In these ways, objectives serve both cognitive and motivational functions.

Objectives represent the specific things which an organization is trying to accomplish. They are usually fairly long-term and provide members with incentives for accomplishment. Since objectives give direction to the efforts of the organization, a manager must play a vital role in their formulation or, if they are assigned to him, in making them meaningful for his personnel by interpreting these aims to everybody in such a way as to win support for them. Thus the character of the organization is shaped and sensitized to ways of thinking and responding so that objectives become concrete operational targets toward which all efforts may be directed.

Objectives are statements of intent [illegible] usually say nothing about the mode of their achievement. Therefore, following from his objective-defining activities, a manager must also identify and make operational the role of his organization as indicated by the objectives.

Role definition is, in effect, a decision by an organization or its leaders regarding how it ought to function. This involves estimates of its relationships with other organizations (including the demands to which it should respond), of the means to be used for achieving its objectives, and of its capabilities, potentialities, and limitations.

As conditions change, roles may shift. This necessitates periodic reevaluation by a manager. If reassessment is not carried out, changed conditions can result in the performance of activities which are no longer relevant or which, in the new situation, conflict with those of other agencies.

Insofar as possible, roles should be prescribed when an organization is activated. When this can be done, the only problem remaining is to insure that frequent reassessment occurs to adapt to changing conditions. When, however, organizations that are based on new concepts are activated, as happens frequently in social agencies today, roles must often be worked out on the basis of evolving experience, and leadership of a high quality is required.

Developing Core Personnel

An important activity in managing an agency as a system is the development of a core of personnel, homogeneous as to outlook, attitudes, and motivation, who will occupy the key positions. This core group may include staff personnel, subordinate managers, and the occupants of critical positions at many levels. When developed properly, it serves as the nucleus around which the organization can be built. These individuals reflect the basic outlook of the organization and insure that the development of derivative policies and practices will be guided by a shared perspective.

The development of a core group may involve recruitment and will certainly necessitate the selection of personnel who appear to meet both the technical and personal requirements of the particular organization. Of even more importance, however, is indoctrination of key people and definitions of the responsibilities, roles, and relationships that are supposed to exist between both individuals and units. This may be accomplished by formal statements, but it is more effective when developed by the sharing of experiences during which expectations can be communicated more clearly and less formally.

An important activity in both the development of core personnel and in the general promotion of organizational performance is training. The development of a high level of proficiency within an organization is ultimately a training process which involves two aspects.

The first involves the inculcation and perfection of technical skills, mainly accomplished through formal courses, on-the-job training, and the like. However, a competent, unified organization requires more than proficiency alone. Effective performance depends to a considerable extent on the attitudes and ways of thinking of all personnel, especially those who occupy key positions. Therefore, a second aspect of the training process involves shaping the attitudes of personnel in directions congruent with the objectives of the agency. The greatest opportunities that are available to a manager can be found in his daily interactions with his personnel. At such times, he can interpret objectives and policies, transmit his views of appropriate actions and ways of functioning, and inculcate both general and specific perspectives relative to the proper role and character of the agency.

In this sense, training is a constant activity which requires recognition of the developmental opportunities that may be available and careful attention to the potential effects of day-to-day experiences upon long-term proficiency.

Formulating Ground Rules for Working

Organizational practices and ways of working are matters of legitimate concern for managers of social welfare and rehabilitation agencies. The practices and the attitudes associated with them shape the character of the organization and thus contribute to performance. A part of the management function involves insuring that each individual knows what the organization is supposed to accomplish, how his duties relate to the organization's objectives, and what constitute the ground rules for performing his activities.

Ground rules are basic understandings which are supposed to be adhered to by all concerned. Many organizations are less than effective because basic ground rules have not been clearly set forth. If ways of working are not fully understood and agreed upon, departments spend their time competing against each other, line and staff personnel get into each other's hair, managers waste their energies fighting over cloudy jurisdictions, and it all ends by everyone losing confidence in the organization.

Under certain conditions, such as the activation of a new organization or department, formal statements are useful for communicating policies about ways of working. However, the manager's greatest opportunities for leadership in this area arise in the course of daily work. It is here that he is best able to communicate desires and attitudes relative to ways the organization should function.

Developing an Effective Communication System

Viewed as a system, an organization is an elaborate network for gathering, evaluating, recombining, and disseminating information. For this reason, communication is the essence of organized activity and is the basic process out of which all other activities derive. The capacity of the organization to respond to changing situations and pressures, the motivation of personnel to contribute consistently and eagerly to the welfare of the organization, and the ability of managers to mobilize the vital human resources for accomplishment of objectives—these depend in large part upon the effectiveness of communication.

The effectiveness of organizational communication rests upon fulfillment of several requirements. The first is that the formal communication system, which operates through the chain of authority, must function efficiently and according to its design. Therefore much attention must be given to insuring that everyone receives the information he needs and that blockages do not develop within the system.

A second requirement involves obtaining uniform understanding and compliance with formal communications. This is a problem because each of the units within an organization has its own particular mission and certain unique objectives. Therefore, when a communication is sent to a number of subordinate units, each unit may extract a different meaning from the message depending upon its significance for that unit's mission and the things it is striving to accomplish.

Accordingly, one task for a manager involves interpreting the purposes, intentions, and reasons for everything to everybody, especially reasons for changes that may exert drastic effects upon missions, roles, values, and the relationships among subordinate units. Interpretation means more than merely issuing a formal statement. The manager has to construe meanings to different units and individuals in such a manner as to obtain both understanding and support.

A third requirement involves regulation of the relationships which may affect the communication process. In organizations, personnel are structured into certain systems of relationships, e.g., those based on authority structures, functional (work) structures, or friendship structures. These systems of relationships both stimulate and inhibit effective communication. They facilitate communication because they provide stable expectations about who should communicate with whom about what and in what manner. However, uncertainty in these relationships can also inhibit communication. Personnel losses, transfers, promotions, replacements, and new policies and procedures can modify the relationships between people. When this occurs, communication can become less effective.

More than any other individual, a manager can govern these relationships and, by so doing, affect communication within his organization. By controlling and regulating relationships, he can stabilize the communication system, thus contributing to organizational performance.

Promoting a High Level of Motivation

The power of organized activity depends upon the willingness of individuals to cooperate and to contribute their efforts to the work of the organization. In short, outstanding organizational performance requires that personnel be motivated.

It is characteristic of many organizations that motivational problems may be viewed as administrative ones. Thus, when such problems are identified, a manager may attempt to handle them through administrative fiat—through the issuance of new directives, the changing of policies, the correction of bad physical conditions, etc. However, there is a significant distinction between these kinds of actions, which merely reduce already existing problems, and those aimed at developing and maintaining a positive state of attitude which can serve as an active force for achievement.

High motivational conditions require conscious and calculated efforts by leaders to develop and sustain them. A manager must use both his leadership skills and his organization's resources in order to create motivational conditions which are conducive to effective performance. The problem is that just about everything in an organization has effects upon motivation. This suggests that every decision and every action by a manager must be considered in the light of its possible consequences for motivation, as well as for its effect upon operations. This is not to say that decisions and actions which favor operations over motivation may not occasionally be required. However, it is one thing to make a decision favoring an objective while taking into account that motivation will likely suffer as a result. Such awareness permits a manager also to undertake appropriate measures to counter the anticipated drop in motivation. However, it is another matter to make such a decision with total disregard for its effects upon motivation.

Setting Standards of Performance

A final activity involves controlling the quality of performance through the development and communication of standards of excellence and through inculcation of such standards into daily activities within the organization. Formal control devices are an essential tool in the management of social and rehabilitation agencies. However, control is most effective when a manager develops explicit expectations relative to the quality and quantity of performance and communicates these expectations so that all personnel have clear standards against which to gauge accomplishment.

For social welfare and rehabilitation workers, explicit standards of performance are not always easy to develop. However, everyone who directs the activities of other people uses some frame of reference for judging whether the work of his organization and his personnel is satisfactory. In certain instances, these standards are highly explicit; in other cases, the person making the judgments cannot himself enunciate clearly the basis for his evaluations. But, regardless of whether his ideas are hazy or clear, every manager uses some guidelines for judging performance, and these standards should be a matter of record within the organization.

CONCLUSION

Until recently, systematic knowledge of the type most needed for the management of social welfare and rehabilitation organizations has been limited by the traditional approaches in both sociology and psychology. In sociology, there has been a notable lack of interest in research in which organizational variables could be controlled and manipulated. On the other hand, psychology, with its more experimental approach, has generally neglected the formulation of systematic research problems in the broader setting of functioning organizations. It is only recently that a genuine hybrid—organizational psychology—has emerged (Schein, 1965). This new area is a true amalgamation of the sociology of organizations with industrial and social psychology, including group dynamics. It possesses a conceptual vitality which offers great promise for understanding behavior within organizations. Most important, the concepts have significant practical implications.

Probably the greatest impact will result from emphasis upon the interrelationships between structural and human aspects. As shown in the earlier discussion of theoretical approaches, there has been a decided tendency for theorists and researchers to stress either structure or people, usually while ignoring the other aspect. Yet in reality neither can be safely ignored.

An organization is a number of persons performing some activity in relation to its external environment. The way the persons are arranged in relation to each other and the task is the structure of the organization. However, formal structures and role definitions cannot consider differences between individual human beings. In the same way, formal structures cannot take account of the deviations introduced by the human variable, and formal control mechani breakdown if relied upon alone. Thus the existence of deviations forces a shift away from the purely formal structure as the principal determinant of effectiveness to a situation in which informal patterns of relationships and human motives exert a decided influence upon performance. These human factors must be considered in any reasonable consideration of organizational behavior.

However, it also is unreasonable to consider people without recognizing the influence of the organization upon them. People function within situational contexts, and these contexts define and limit behavior. An organization is a very potent context and, accordingly, authority structures, policies, and procedures are important forces which circumscribe and channel activities. For this reason, both individual and group behavior within an organization is simply not the same as that outside of it. This fact can never be ignored.

Carried over to management, this suggests that the first thing of which a manager must become aware is that behavior in organizations is usually the resultant of many determinants, which may include both structural and human aspects operating together. To seize upon one or two factors as a basis for action and neglect the rest is usually a gross oversimplification. It can only cause the manager to misunderstand the problem and take the wrong course for its resolution.

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DETERMINANTS OF WORKER JOB MOBILITY AND ITS IMPLICATIONS FOR SERVICE DELIVERY

Scope of Work from Request for Proposal

by

Social and Rehabilitation Service

Research Proposal

by

Raymond A. Katzell, Abraham K. Korman, and Edward L. Levine
New York University

Summary of "Scope of Work" from the Request for Proposal Issued by SRS

1. This is a request for a proposal to perform the work of conceptual and methodological development, based on existing theory and research, and field investigation for studying the determinants and consequences of differential worker mobility and its implications for service delivery. For purposes of this study, worker job mobility is defined as inter- and intra-agency job movement as well as movement into and out of the social welfare and rehabilitation field. Transfers, promotions, resignations, and other job changes are included.

2. The study and interpretation of worker job mobility have long been a concern of those researchers who have studied worker or organizational behavior and organizational effectiveness. The importance of this phenomenon stems from its implications for costs in recruiting, selecting, training and placing workers, its impacts on the quantity and quality of work performed and services rendered, and on workers themselves. This research is directed toward an exploration of the issues and effects of worker mobility and the identification and exploration of critical questions about:

   a. the ways in which worker mobility can be characterized that are meaningful from the viewpoint of work planning, organizational management, education and training, and worker career management and planning.
   b. the ways in which different attributes of the work situation and characteristics of the workers relate to different types of worker movement.

3. In order to be dealt with meaningfully, worker job mobility—interjob, interagency and to and from the field—must be characterized as a dynamic phenomenon with different implications for the worker and for the employing organization and for different situations and circumstances. This characterization must spring from a conceptual framework that depicts different types of mobility within the context of (1) the settings in which it takes place, (2) those workers who contribute differentially to its occurrence, and (3) the nature of the process in which entrance into or exit from specific job or agency employment is the end result. The adequacy of this characterization will be in terms of the extent to which it:

   a. explains and thus predicts mobility differentially for different types of workers and different types of organizations.
   b. allows implications to be drawn about the effect of worker mobility on workers themselves, other staff, clients, agencies, and services rendered.

PHASE I

1. The contractor shall identify and make an extensive review of literature on research, theory, and practical experience as necessary to identify and integrate major ideas and findings relevant to the study and as needed to generate the conceptual framework specified below. This review shall include but is not limited to literature pertaining to social services, health care, education, industrial psychology, organizational theory, sociology, and labor economics.

   The contractor shall integrate the findings and concepts emerging from the review and shall develop a conceptual framework and research methods for studying the dynamics and effects of different types of worker mobility with the ultimate purpose of explaining and predicting differential worker mobility by types of workers and type of organization and work situation characteristics.

2. The conceptual framework developed;
   - a. Must identify and operationally define different types of worker job movements that have important implications for work and worker management and planning.
   - b. Must specify, organize, and allocate variables in a meaningful way in relation to the different categories of worker job movements.
   - c. Must capture the realities of social welfare and rehabilitation workers, work, work settings, and management.
   - d. Must lead to a specification of dimensions of worker mobility and relationships that are amenable to empirical study.
   - e. Must be comprehensive in terms of accounting for significant proportions of variance.
   - f. Must be productive of knowledge concerning the relationships among worker mobility patterns, the work to be done by and within the organization, and the manpower performing that work.
   - g. Must be useful in suggesting manipulable variables which, when intervening in existing relationships, may come to effect changes in the field. These criteria imply that the contractor will be able to identify desirable methods for measuring the required variables.
   - h. Must have the capability of generating knowledge which may be used for further research and have implications for policy recommendations with respect to recruitment, training and education, work assignments, service programs, and workers' education decisions and career planning.
   - i. Must define a set of dimensions which meet these criteria and enable researchers to set the parameters for sampling workers to be included in the national survey, such that the sample selected will consist of the smallest number of workers capable of capturing the range of worker mobility actions on the relevant dimensions.

3. This conceptual framework shall consider the following:

   a. The theoretical nature of worker mobility as an employee response to the conditions inherent in a work setting, a response to external events, and a "natural" phenomenon linked to the career development and growth opportunities.
   b. The theoretical nature of worker job mobility as both a characteristic of workers and of organizations as work settings.
   c. The extent to which differential mobility can be accounted for in terms of the characteristics of the workers, organizations, agency settings, work content, etc.
   d. The nature and interaction of the variables that affect workers' decisions to take, stay in, or leave jobs, to transfer to new jobs, etc.
   e. The question of saliency and worker definition of external events as determinants of impact on workers' mobility behavior.
   f. The effect that different mobility patterns in an agency have on clients, staff, services, agency management, costs, etc.

4. The contractor shall plan and conduct a limited field investigation designed to supplement and extend the concepts derived from the review of the literature and to provide indications of the relevance of the variables he has chosen and the extent to which the patterns and relationships among his variables can be identified in various social welfare and rehabilitation settings. The contractor shall determine the practicality of (a) relevant research for use in proposed national survey and (b) more intensive research on the different aspects of mobility, and shall identify problems in further research. The determination of practicality shall take into account the feasibility of measurement of the different variables. Feasibility is defined here in terms of the ability to construct operational measures of the variables within a reasonable time and cost framework. The field investigation should be conducted concurrently with, and be an integral part of, the conceptual development work.

Based on his knowledge of worker mobility, research methods, measurement, and social welfare and rehabilitation services and organizations, the contractor shall specify the number and types of organizations (public and private, social welfare and rehabilitation service-delivery, policy, and planning organizations) and workers which he thinks will need to be included to fulfill the scope of work.

DETERMINANTS OF WORKER JOB MOBILITY AND ITS IMPLICATIONS FOR SERVICE DELIVERY

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DETERMINANTS OF WORKER JOB MOBILITY AND ITS IMPLICATIONS FOR SERVICE DELIVERY

Raymond A. Katzell, Abraham K. Korman, and Edward L. Levine*

The general purpose of the studies described in this proposal is to help increase the effectiveness of manpower in the delivery of social welfare and rehabilitation services. The job mobility of workers is an important element in service delivery by their employing agencies, so that more effective management of the factors associated with mobility should increase the effectiveness of the delivery system. The proposed studies would contribute to this end by developing more complete understanding of the dynamics of worker job mobility than now exists. This understanding will be achieved by investigating the nature, determinants, and effects of job mobility among professional and paraprofessional workers providing social welfare and rehabilitation services.

Four major problem areas need to be addressed in order to attain the above objective. One centers around the nature of job mobility itself. What are the forms and scope of job mobility among workers in this field? How can they best be defined and measured? Do the pattern and frequency of mobility vary in different types of agencies?

The second is concerned with the consequences of worker job mobility. What are the effects of the several forms of job mobility in the field of social welfare and rehabilitation services on the employing institutions and agencies, on their clients, on the workers themselves? In what respects does mobility have desirable and undesirable consequences?

The third focus has to do with the antecedents and causes of the several forms of worker job mobility. What are the personal characteristics of mobile as compared to nonmobile workers—and of workers exhibiting different forms of job mobility? How do job content and the component tasks relate to mobility? Are the clients themselves an influence? What are the differential characteristics of employing organizations where given forms of mobility are high vs. those where they are low? Do the relationships between mobility and various worker and job characteristics vary among different types of organizations and organizational climates?

Finally, there is the problem of how the field of social welfare and rehabilitation services, and its constituent agencies, might be altered so as to

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improve service delivery by taking better account of the dynamics and implications of worker job mobility. Basically, what are the implications of the answers to the previous and similar questions for policies and practices that would facilitate forms of mobility having desirable consequences and curtail those having undesirable consequences?

The following research proposal has been designed to cope with these and related questions.

Phase I: An Overview Study of Determinants of Worker Job Mobility

A. Literature review and preliminary conceptual paradigm

B. Limited field investigation

1. Depth interviews with expert informants
2. Depth interviews with a selected sample of social service personnel to explore their past mobility and its attendant conditions

Phase II: Technical Assistance to the Social and Rehabilitation Service (SRS) in Connection with National Study

Phase III: An Intensive Investigation of Worker Job Mobility

The National Study will provide for a wide-scale investigation of a limited set of phenomena relating to worker job mobility. The Phase III study will be designed to complement it by investigating in greater depth a larger number of factors and relationships in a smaller sample of agencies and workers.

The target population of workers to which this proposal is aimed comprises professionals, subprofessionals, and paraprofessionals directly engaged in rendering social welfare and rehabilitation services as staff members of institutions and agencies in the U.S.A. having the delivery of such services to clients as an official goal or mission. It includes supervisors or directors of such services but excludes members of related professions who may collaborate in serving clients, such as physicians or psychologists, as well as support personnel of the agencies, such as business agents and secretarial workers.

PHASE I. AN OVERVIEW STUDY OF DETERMINANTS OF WORKER JOB MOBILITY

The problem of worker job mobility is best formulated in terms of an open-system framework. Among the implications of the notion of an open system the most central are:

1. The dynamic nature of the phenomena under study;

2. The necessity for using multivariate and multidisciplinary methods to investigate meaningfully the system in operation;
3. The requirement that all levels of the system be considered both separately and in combination, since they operate both separately and in interaction with others.

With this basic orientation in mind, a preliminary conceptual paradigm is set forth in Table 1. It contains those concepts and parameters which we believe may be of value for the study of worker job mobility of all kinds. It is our intention in Phase I to test out the fruitfulness of this tentative conceptualization and thus arrive at a set of concepts, related hypotheses, and methods of measurement which will then lend itself to meaningful research. Table 1 is thus intended as our tentative guiding framework to help in the development of a more definitive research model, and it is the attainment of this more definitive model that is the goal of Phase I.

The methods of Phase I will be of two types. First, we will undertake an exhaustive review of the literature relating to job mobility. This literature will cover the fields of industrial and social psychology, occupational sociology, labor economics, social work and public administration, and public and business administration. The principal steps to be taken to ensure comprehensive coverage of the literature will be a review of the landmark studies on the subject, tracing the references contained therein, checking bibliographical indexes (such as *Psychological Abstracts* and *Sociological Abstracts),* and guidance and review by a panel of experts drawn from the several relevant disciplines. An illustrative list of key bibliographical references appears in the Appendix.

The second method to be used in Phase I will run approximately concurrently with the literature review. It will consist of a limited field investigation which will have as its major purpose the determination of whether our concept development and identification of relevant, important, and definitive variables for investigation corresponds with that of individuals who are knowledgeable concerning the world of social welfare and rehabilitation services. On the basis of this limited field investigation, which is described more fully later, we will make appropriate revisions in our research model. It is this final model that will be used as the guiding framework for the more intensive investigation proposed below for Phase III.

LITERATURE REVIEW AND PRELIMINARY CONCEPTUAL PARADIGM

As indicated, the first part of Phase I will consist of a comprehensive study of the research literature of the various relevant disciplines in order to refine and improve the tentative schema listed in Table 1 into a more definitive model for research investigation. Since we will be using the variables and concepts listed in Table 1 as preliminary guiding variables around which to organize our review, we will provide here a description as to how we conceptualize these

Table 1.—*Preliminary conceptual p. for the study of worker job mobility*

Antecedents			Central Concept	Consequences
Individual	*Group and organizational contexts (including the job)*	*External*	*Worker job mobility*	
1. Ability a. aptitude b. training c. experience 2. Motivation a. expected satisfaction in job, agency, field and alternatives b. expected dissatisfaction in job, agency, field and alternatives Determined by a. values b. self-concepts c. perceptions of world of work 3. Demography a. age b. sex c. race d. birth order e. social class f. tenure	1. Job a. work context & tasks (including clientele) b. pay c. benefits d. conditions e. colleagues f. supervision g. advancement h. career development i. counseling ii. training 2. Work Group a. cohesiveness of groups b. norms 3. Organization a. location b. goals and mission c. organization climate d. specialization e. power distribution f. communication pattern g. status hierarchy (tall, flat)	Economic conditions Labor market Personal and family Changes in SW&R field Funding Community characteristics a. geographical location b. prestige ascribed to career in the field c. social problems	1. Within agency a. initial entry b. lateral c. upward (d. downward) 2. Between agencies a. initial entry b. lateral c. upward (d. downward) 3. Out of field In connection with any of the above a. voluntary or involuntary b. new status of worker	1. For field (all agencies) a. delivery of services b. costs c. growth d. creativity and change 2. For organization a. delivery of services b. costs c. growth d. creativity and change 3. For individual a. perquisities b. status c. growth d. satisfaction 4. For clientele

variables at this time and why we believe them to be relevant. (It is, of course, possible, and indeed likely, that our conceptualization will change as a result of our review and deliberations and as a result of our development of a more definitive model.)

Variables in the Paradigm

Worker Job Mobility: The Central Concept

Mobility takes a number of forms. *Within each agency* there are four possible moves by an employee: (1) entry, in which the individual is recruited and selected; (2) lateral, in which the individual takes on different duties and/or job title at the same hierarchical level; (3) upward, in which the individual receives a promotion; and, probably less frequently, (4) downward, in which the individual is demoted to a lower rank or takes on simpler duties.

The same four types of movement also characterize *interagency mobility.*

Further, mobility may take the form of *leaving the social welfare and rehabilitation services field.* When this happens, it is important to ascertain the new occupational status to which the worker moves.

In each of the foregoing forms of mobility, the worker may move *voluntarily,* as when he decides to continue his education or accepts what he regards as a better job. Or the worker may move *involuntarily,* as when he is laid off or transferred.

At the outset, all forms of worker mobility must be studied separately, for both the causes and consequences of job mobility may be quite different for each form.

Consequences of Job Mobility

Worker mobility is both a direct and indirect cause, singly and in conjunction with other system characteristics, of several consequences.

For the entire social service field and for each individual agency, delivery and costs of services may be affected. The extent to which these are, in fact, influenced by job mobility would be determined.

On the other hand, some critical degree of movement of workers within and between agencies and out of the field altogether may be essential to organizational and agency creativity, and to their capacity for accommodating to changing conditions.

For the individual, the movement from job to job, in the most inclusive sense of the term, can be quite disruptive. On the other hand, many of his goals and demands may be better satisfied by changing jobs; his degree of self-actualization, social status, and salary level may be increased by moving from one job or agency to another, or one career to another. His satisfaction with his job and his life, as well as his mental health, may thus be affected. Indeed his expectation of such positive changes may have impelled the move in the first place. (Antecedents of job change are discussed below in more detail.)

The clientele are affected as well. This may occur on the level of the individual client, as when a caseworker who has developed rapport with his clients must be replaced by a "stranger." On an agency level, the capacity of all agencies to deliver services would be adversely affected by excessive job mobility or benefited by certain forms of mobility, such as entry of better-qualified personnel.

Antecedents of Job Mobility

Worker job mobility may be viewed as a dependent variable with many antecedents. These antecedent factors, some of which have already been the subject of research while others have not, may be grouped under four subtopics.

Factors in the individual. Three categories of individual characteristics related to worker mobility may be noted: ability, motivation, and demography.

Ability incorporates the individual's aptitude for the field, his formal training and other prior preparation, and his prior work experience. It has been shown that ability to perform a job or task is related both to overall satisfaction with and success on the job, and therefore affects the individual's propensity to [illegible] ob. Also, his suitability for other positions both within an [illegible] service field is a function of his ability. A good worker is actively sought by rival organizations from various spheres of activity. His level of aspiration may also change as a result of his perceived competence. This should alter his willingness to stay at a given position. On the other hand, incompetence would lead to termination or discouragement.

Motivation encompasses all the determinants of worker mobility based on the employee's needs and goals. At the level of individual choice, the worker must decide on the alternatives open to him in terms of the expected satisfactions and need fulfillments (or dissatisfactions and need frustrations) offered by each. These expected satisfactions or dissatisfactions may operate through two motivational systems—equity and optimization. Both may energize the individual's behavior. The equity or balance mechanism would steer the individual to a job which maintains his position with respect to his self-concept relative to some reference group. For example, an individual may choose an occupation, not because he likes it or because it pays well, but because his social position or competence demands that he choose it. The equity motive may thus be satisfied.

On the other hand, optimization of outcomes is another source of job choice. Jobs paying well, or which on balance satisfy a variety of other needs, would be chosen by the optimizing individual.

Personality, values, and the self-concept (especially the level of esteem one has for himself), and perceptions of the world of work, all affect the motivational complex which is operative at a given decision point. Elaborating somewhat on the variable, "perception of the world of work," with so many occupational groupings and jobs within groupings available to choose among, individuals must pick their jobs according to a somewhat stereotypic view of them. Discrepancy between the individual's *expectations* about a profession and the *actual* work and rewards involved may in itself lead to mobility.

Demographic characteristics of workers may also underlie job shifts. Age, race, sex, social class, tenure, and birth order have been shown to be associated with job mobility.

Group parameters. Ever since the research of Elton Mayo and his colleagues, the work group has been seen as a force to be reckoned with. Group cohesiveness, the resultant of forces to keep membership in a group vs. the forces to withdraw, can of itself influence worker mobility. The informal work group(s) may be so cohesive that, despite all other factors which would dispose a worker to leave the organization, he stays on. Group norms, "pecking orders," "cliques," and the instrumentality of membership in a certain group for getting ahead all affect the type and amount of worker mobility in an organization.

Organizational parameters, including the job content. The organization provides many influences on individual need satisfaction, individual performance, and growth, all of which may affect job mobility.

On the level of *the individual job,* the worker's pay, benefits, working conditions, colleagues, supervision, and advancement are identifiable and measurable sources of satisfaction and achievement. Moreover, the content of the work itself, as much research has demonstrated, is a major determinant of such outcomes. Still another factor is the extent to which rewards are contingent upon good job performance and/or a high level of effort. Moreover, the provision for the individual of meaningful career development and further training (where desired) is also crucial for professional men and women.

Global organizational characteristics which may cause worker mobility include the distance of the work place from the worker's residence, the stated and implied goals and missions of the organization, the degree of their accomplishment, and the organizational climate, such as its power structure, communication nets, and status hierarchy. The organizational climate may do several things:

1. It may change individual satisfactions.
2. It may cause layoffs and dismissals because of faulty organizational functioning.
3. It may affect the individual's level of aspiration.
4. It may alter the individual's personality, including his values, needs, and self-esteem.

It is expected that the investigators of the organizational contexts and work taxonomy will provide measures for many of these variables.

External factors. Several factors external to the worker and the organization may result in movement of workers. Among the more general are the labor market and the state of the economy. Also, community problems and needs may or may not match the qualifications or interests of agency personnel. Personal and family circumstances further cause a type of mobility. Changes in the social welfare and rehabilitation field itself, such as more stringent educational requirements for entry, may affect the number of applicants to the field and the desirability of a social service position. Funding from government and private sources is also likely to be an influence on job mobility.

Illustrative Nomological Net for One Class of Worker Job Mobility: Voluntary Leaving of the Field of Welfare

Let us at this point attempt to connect and relate the variables described in the sections immediately preceding. This may be seen to be equivalent to the establishment of links between the columns of Table 1.

The fundamental purpose of a theoretical framework is to enable the prediction of some phenomenon. In this instance, the framework should make possible, on the basis of knowledge of various antecedents or causes, the prediction of the probability that a certain event (a change in a worker's job status) will or will not occur. More particularly, since there are various forms of worker job mobility as noted in Table 1, the framework should enable the prediction of the likelihood of each form of mobility relative to other forms, including nonmobility. In short, the framework to be built during Phase I will endeavor to differentiate each of the several forms of worker job mobility from each other and from nonmobility in terms of certain sets of causal variables. It would therefore make possible probability estimates of which workers in which agencies would, in a given period of time, experience each of the several forms of job mobility or nonmobility. This it would do on the basis of the particular constellations of antecedent variables that research reveals to be causally linked, directly or indirectly, to the mobility phenomena. These causal linkages constitute a nomological net.

One tentative nomological net underlying the conceptualization set forth in Table 1 can perhaps most meaningfully be discussed in the context of how a particular form of worker job mobility may be differentiated from other forms (and nonmobility) in terms of their different causal dynamics and their consequences. For purposes of discussion, let us select that form of worker job mobility that may be defined as the voluntary leaving of the field of social welfare and rehabilitation services; i.e., the worker chooses to leave his employment in an agency and not to take up employment in another agency in this field. Our theoretical framework should enable us to describe the antecedents or causes which, with disproportionately greater frequency, would lead to this kind of event rather than to other forms of mobility and nonmobility, none of which involve leaving this f[illegible] of employment.

This choice necessarily leads to a focus on causal factors of such generality that they would lead many workers to reject that occupational field in favor of another. Other factors, limited only to certain situations, would play a part in other forms of mobility and would therefore also enter into our research design. To illustrate, it is hypothesized in our framework that relatively low salaries are a general cause of withdrawal from the social welfare and rehabilitation field. and will therefore appear in the discussion below. However, having an uncongenial supervisor will not enter into our present elaboration because it is unlikely to lead many people to withdraw from the field altogether, although it would enter into the total framework as a factor entering into in[illegible] [illegible]bility.

Referring once again to Table 1, our preliminary paradigm posits that there are three major classes of causal circumstances: characteristics of the individual job incumbents, characteristics of the work setting, and characteristics of the external environment, such as the labor market. Below will be indicated those characteristics under each of these rubrics which, singly and in combination, previous research and theory suggest would be more typical of those who voluntarily leave the social welfare and rehabilitation field as compared to those who remain in it.

A. Individual Characteristics

1. *Ability.* A curvilinear relationship is hypothesized between ability and proneness to leave an occupational field voluntarily; i.e., those who leave are more likely to have either distinctly greater or distinctly less ability than those who do not. The dynamics involved are as follows: the overqualified are more likely to find themselves frustrated by the lack of challenge and opportunity and also to be offered job opportunities by other employers; the underqualified are likely to become frustrated by the relative absence of success experiences and also to

receive subtle discouragement from peers and supervisors concerning their continuation in this line of work.

2. *Motivation.* As Katzell (1964) has pointed out, a person's decision to leave an occupation is a function of the perceived probability of achieving net satisfaction of one's values in that occupation relative to the perceived probability of achieving net satisfaction in an alternative field. The perceived probability of achieving more satisfaction in the social welfare and rehabilitation field relative to other fields would depend on the extent to which a worker's values correspond to the rewards available through the former type of work. Those with stronger orientations toward helping others and toward working with people would be more likely to stay in the field than those whose values were more strongly characterized by power, materialism, or abstract intellectualization. A person's level of self-esteem enters into the degree to which expected satisfaction determines his occupational choice (Korman, 1969). Thus, those most likely to leave the field are those who not only expect their net satisfactions to be higher in another line of work but also have relatively high self-esteem and a feeling of competence. Those who stay in the field either are those who expect their net satisfactions to be adequate in it or whose low self-esteem operates to lower their orientation toward self-fulfillment.

Another motivational determinant is the degree of incongruity between job expectancies and job experiences (Weitz, 1956; Katzell, 1968). Those who have an unrealistic picture of what an occupation entails are more likely to leave than those whose initial expectations are more realistic. The former are more likely to be "turned off", since marked discrepancies between expectation and experience are in themselves dissatisfying (McClelland et al., 1953).

3. *Demographic characteristics.* Various demographic characteristics have been found to be differentially associated with leaving and staying in a field of work (Herzberg et al., 1959). This is typically because of an indirect influence through some intervening link. Thus, for example, older workers are less likely to quit than younger ones, because age lowers one's expectations, reduces job opportunities, etc. We would expect those who leave the field to: be younger; be more often female than male; have had shorter tenure in the field and on the job; be members of ethnic minorities; have histories of earlier job mobility; and have fewer dependents.

The foregoing paragraphs all relate attributes of the individual worker to his inclination to remain in or leave the social welfare and rehabilitation field. The intervening dynamics have to do with whether his ability, motivations, and opportunities are more appropriate to this or to some other occupational field. In addition, certain types of work settings have been found to be more conducive to workers' leaving and others to staying, so that a pragmatic conceptual framework entails using characteristics of the settings as well as of the workers as predictors of job mobility. Table 1 enumerates under the heading of "Group and

Organizational Contexts" three major classes of such influences. Their role in the nomology of job mobility will be discussed in the next section. Many of these characteristics vary markedly among agencies or components of agencies, and would therefore help account for interagency or intra-agency mobility. But those which do not typify all or most agencies are not featured in the present discussion of circumstances evoking withdrawal from the social welfare and rehabilitation field in contrast to other forms of mobility. Different organizational climates or patterns of supervision illustrate the more circumscribed kinds of factors to which we refer here. They would, of course, enter into the total conceptual framework research strategy to be developed on the basis of Phase I of the study.

B. *Group and Organizational Contexts*

1. *Job characteristics.* The obverse side of the issue of what attributes the worker brings to the job is manifestly what the job provides for and demands of the worker. Certain parameters of the job itself characteristically induce higher rates of quitting than do others, basically for reasons that represent a fail [illegible] match the abilities and motivations of many incumbents.

Among the job-related factors under this rubric that may be hypothesized as being sufficiently general to help produce withdrawal from the social welfare and rehabilitation field are the following:

Relatively low salaries
Limited opportunities for advancement
Having low status within the agency
Excessive workloads
Excessively routine content of work
Too many uncooperative, hostile, or inaccessible clients
Insufficient training and career development resources

2. *Work-group characteristics.* The work group can be a strong magnet to attract or repel members, thereby affecting turnover. Among the factors which mold group cohesiveness are the degree to which members share goals and norms, interpersonal compatibility and homogeneity, and the extent to which personal goals can be attained through group action (Cartwright and Zander, 1960). It is not anticipated that many conditions making for group fragmentation and antipathy will be sufficiently general as to lead many workers to withdraw from the social welfare and rehabilitation field. However, one possible line of cleavage that may have this effect is a collision between the older, more traditionally trained and oriented professionals and the paraprofessionals who are entering the field in increasing numbers. To the extent that workers in both categories sense differences in goals, in behavior norms, and in cultural backgrounds, many may become disenchanted with continuing to work in the field.

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3. *Organization.* Several organizational characteristics of the employing agencies are likely to be experienced as sufficiently general to induce workers to leave the field. Again, the intervening mechanisms would be incongruity between the abilities and needs of many workers on the one hand, and organizational demands and reinforcements on the other.

Perhaps the most fundamental of these would be inability on the part of the worker to identify with the goals and missions of most agencies in the field. Many workers might find themselves out of sympathy with the service objectives and strategies of their employers—either in terms of their intrinsic merit or the role demands involved—and so be unwilling to continue in this field of work.

Another general factor might be the degree of bureaucratization which may characterize agencies in this field. Many workers may feel unduly confined by the extent to which their job behavior is prescribed by rules and regulations set by formal authorities—perhaps in many instances outside the agency itself, as by legislatures or the courts.

The existence of a rigid and demarcated status hierarchy may be intolerable to many of those at lower echelons. This can result in feelings of powerlessness and worthlessness in the face of a distant and relatively inaccessible elite. This condition may especially affect the rates at which junior professionals and paraprofessionals leave this occupational field.

The foregoing all add up to features, possibly seen as characterizing most social welfare and rehabilitation agencies, which would induce alienation on the part of an appreciable number of workers in the field, particularly in certain junior roles. Alienation would often lead to withdrawal from the field.

C. *External Circumstances*

Not all turnover is determined by factors in the worker or his job setting. External circumstances also play a part, essentially by creating opportunities or pressures for or against a change in job status. Some of the main possibilities that might help determine whether or not a person withdraws from the social welfare and rehabilitation field include:

1. *General economic conditions.* Adverse economic conditions might drive some workers to seek higher-paying employment in other fields, since the earnings of others in their families might be curtailed. A weak economy could also adversely affect funding of agencies, leading many workers to seek more stable and/or remunerative employment in other fields.

2. *The labor market.* A short supply, relative to demand, of workers having the education and talents of social welfare and rehabilitation workers would tend to induce many to leave the field, both because they would have more opportunities in other types of work and because they could be relatively sure of reentry into the field should their experiments prove unrewarding.

3. *Family or personal requirements,* such as ill health, maternity, or changes in a spouse's work location, can also play a part.

D. *Interaction Effects*

In the foregoing discussion, the effects of various personal, organizational, and external factors have been treated separately. However, it is probable that a number of these variables will interact with one another in affecting worker job mobility. We have already illustrated the probable interaction effects of two personal characteristics on mobility: expected job satisfaction and self-esteem. An example of an interaction between a personal and an organizational variable is the hypothesis that workers high in need for autonomy would be more likely to quit because of their experience in bureaucratic organizational climates than would workers having less need for autonomy. Again the conceptual linkage leading to the prediction of such interactions is the extent to which two or more variables either reinforce or cancel each other in creating a match between worker and situational characteristics. The prediction of interaction effects would necessitate research designs and methods for data analysis calculated to reveal their existence.

E. *Consequences of Mobility*

To close this attempt to develop a tentative nomological net, it should be noted that it posits that job mobility will have multiple consequences: for the social welfare and rehabilitation field as a whole, for individual organizations, for the worker, and for clients. It should be pointed out that different forms of mobility may be expected to have at least partially diverse consequences. Again to use our central example of withdrawal from the field, this type of mobility may be expected to have more pervasive adverse effects on clients than would other types since, in effect, it would deprive clients of the services of many trained personnel. Effects on the individual agencies and the field as a whole would be mixed. To the extent that many of those leaving the field would be those not well-suited to this line of endeavor, the average effectiveness of those remaining should be improved. However, the framework does not predict that all those leaving would be less suitable, so that there would be the residual problems of recruiting and training replacements for the personnel who leave. The latter problems would be more severe for the field as a whole than would the consequences of interagency mobility, but no greater for the individual agency which, in either case, would have to replace qualified workers.

Mobility entailing leaving the field could generally be expected to operate to the advantage of the mobile worker himself, since the basic reasons underlying such movement are posited as representing a mismatch between the conditions of employment and the characteristics of the mobile workers. However, this advantage may not be greater, or may be even less, than for some other types of mobility (e.g., inter- and intra-agency upward mobility). It may also be minimal for paraprofessionals who may frequently encounter difficulty in locating a more suitable occupational field.

F. Summary

We have attempted to delineate a tentative theoretical framework, or nomological net, by tracing the etiology of one form of worker job mobility, that entailing voluntary withdrawal from the field of social welfare and rehabilitation. We have described how various personal, organizational, and external factors would affect this phenomenon. In doing so, we have focused on those factors which would be especially likely to cause this particular form of mobility rather than other forms. Such factors have two salient qualities: (1) they operate by creating a mismatch between the needs and abilities of some workers and the demands and rewards furnished by the work setting; and (2) they are sufficiently general or universal in this occupational field as to be perceived by many workers as characterizing the field as a whole.

Other forms of worker job mobility would most probably have somewhat different sets of causes. Thus, for example, highly directive, inconsiderate supervisors would be expected to generate interagency mobility (Fleishman and Harris, 1962) but not much withdrawal from the field, since such supervisory styles would not be experienced as pervading most agencies. The complete elaboration of the framework to be developed in Phase I of the study would accordingly specify the different causal networks leading to the several forms of job mobility.

We have also illustrated how and why withdrawal from the field is likely to have certain consequences, some positive and others negative, and in what ways these consequences would be likely to differ from those produced by other forms of worker job mobility.

As indicated by the inclusiveness of Table 1 and by the plethora of factors assumed to be involved with each mobility class, the literature review we are proposing must and will be broad-gauged, and it is our intention to utilize the expertise of university faculty in order to enable us to enter the literature of the relevant disciplines in a meaningful and effective manner. With their assistance, we believe that we will be able to refine and improve our tentative paradigm outlined in Table 1 in the direction of achieving better concept specification, adequate measurement, and more specific hypothesized relationships. This more improved paradigm will then be subjected to further refinement and improvement in the limited field investigation we are proposing as the second part of Phase 1 of our investigation.

LIMITED FIELD INVESTIGATION

A limited field investigation will be conducted to "reality test" the conceptual framework being developed; i.e., to help confirm the appropriateness of the variables to the social welfare and rehabilitation field and to identify others that may have been overlooked. It will also help clarify the practical feasibility of securing the various kinds of data needed for empirical studies based on the conceptual framework.

We believe that two sources of information will be necessary for us to achieve these goals, expert information and respondent information.

Interviews with Expert Informants

We propose in-depth interviews, two to three hours in duration, among a small sample (N = 20) of those individuals who by the nature of their extensive experience in social services or by virtue of their having studied the field, can offer first-hand information about the kinds of worker mobility encountered in the occupation. Additionally, we will ask them to comment on the major causes and consequences of this mobility, and suggest means of ameliorating the system problems which arise because of it.

The central focus of the interview will be the exploration of the conceptual paradigm outlined above, as it has been (or is being) refined by the literature review. The entire procedure should provide a test of the completeness of the paradigm and of its relevance to the field.

Of this sample:

> Five will be public officials who are responsible for the administration and funding of social welfare and/or rehabilitation programs;
>
> Five will be educators involved in the training of social welfare and rehabilitation workers;
>
> Ten will be agency directors or other top personnel of key public and private agencies.

Interviews with Social Welfare and Rehabilitation Workers

Forty individuals currently working in the field will be given in-depth interviews of one to two hours duration. Respondents will be chosen from employees of four agencies of different types, who represent different levels and types of jobs.

The focus of each interview will be a "critical incident"; i.e., the most recent change in the respondent's job status. This incident will be extensively examined in terms of the conceptual framework; i.e., the type of movement, the circumstances leading up to and surrounding it, and its perceived consequences. The respondent will also be asked to recall the most recent incident when he contemplated a job change which did *not* take place; again, this will be examined in light of the conceptual framework.

The interviewer will have with him a list of antecedents and consequences derived from the preliminary conceptual framework, as it has been (or is being) refined and amplified by the literature review. After the interviewer feels that the respondent has given as complete an account as he can, of each of the above "critical mobility incidents," he will enumerate the antecedents and consequences not covered by the respondent to see if these did in fact play some part in the mobility incident but were forgotten by the interviewee. The interviewer will also attempt to discern the importance of the various factors in the respondent's decision to change or to remain on his job.

Strategies and Methods for Obtaining and Analyzing Data

The data analysis for the limited field study will proceed as follows for the two sources of information utilized.

Interviews with expert informants. Information collected from these sources will be treated by means of content-coding. The coding system we will use will be organized around the following categories:

1. Kinds of worker mobility
2. Within each mobility class
    a. the antecedents (including the individual, organizational, and external circumstances) associated with a particular set of mobility events, as these are seen by the expert informants
    b. the consequences to the field in terms of delivery of services, costs, growth and creativity, of various types of mobility events
    c. the specific interrelationships among antecedents and mobility events and consequences. Which antecedents are more importantly involved in the causation of a particular class of worker job mobility? Which consequences are most likely to follow?

This information based on the opinions of the expert informants and in the form of frequency counts and short summary sketches, will be incorporated directly into the conceptual framework which is being developed. In addition, this analysis will serve to direct and focus the review of the literature.

Interviews with social welfare and rehabilitation workers. Here also content-coding will be used to analyze the information collected. The categories should include:

1. Kinds of "critical mobility incidents" with which these workers have been involved:
    a. those which were contemplated but not undertaken
    b. those which actually occurred

2. The distinguishing features of these two classes.

3. The antecedents including individual, organizational, and external circumstances of both classes of mobility incidents; i.e., those where mobility occurred, and those where it did not.

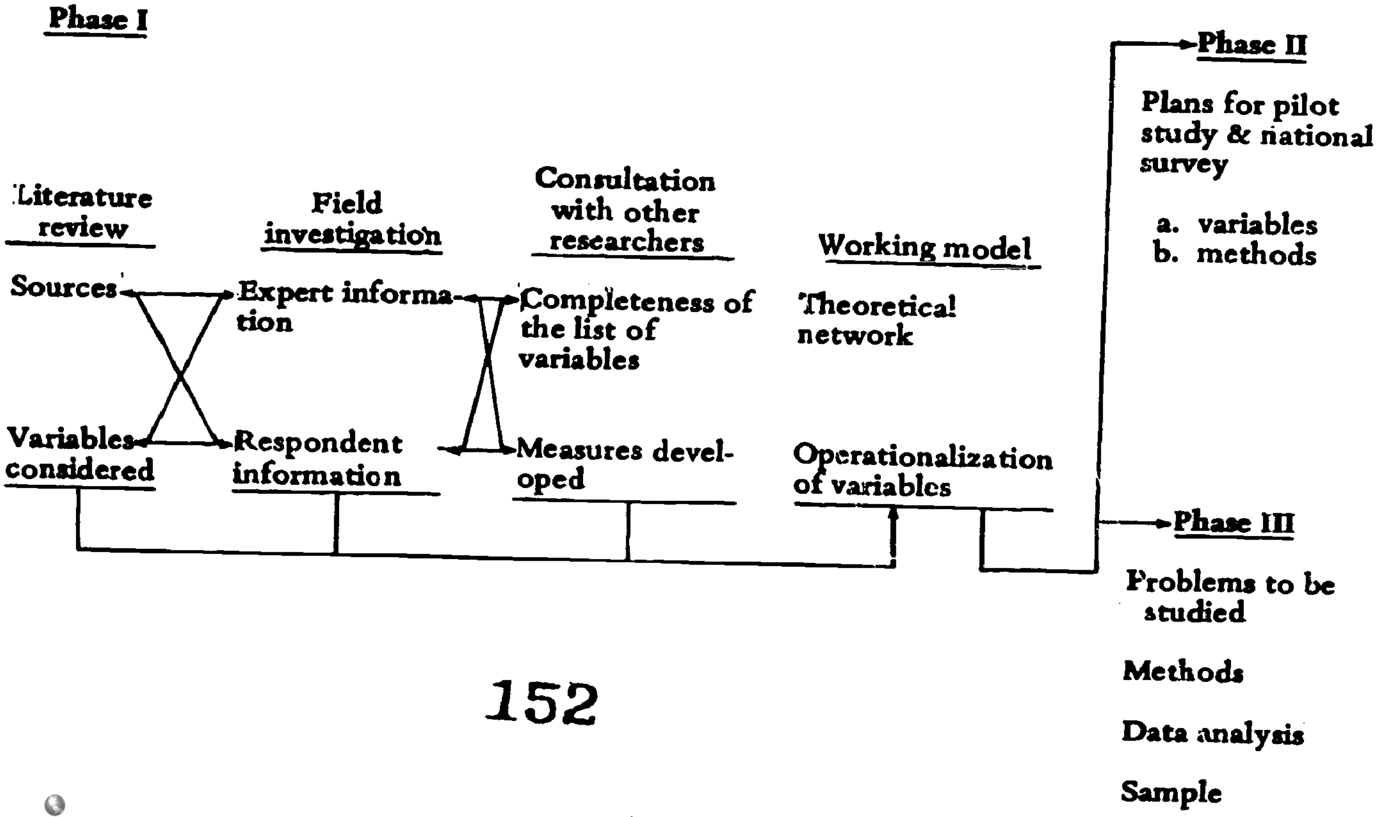
4. The consequences of each incident, especially to the individuals involved but also the extent to which the individual took into account (in cases of voluntary job changes) the consequences to his agency and his clients of both classes of mobility incidents.

5. The relative importance of the factors involved in each critical incident; that is, respondents will be asked to rank the factors they have expressed in order of their importance in affecting the decision to stay on or leave a job.

The data gathered here, primarily frequency counts and factor importance rankings, will be analyzed in conjunction with the literature review and the conceptual framework itself. In addition, comparisons will be made between the information provided by the expert informants and that provided by the employees themselves in order to develop a more definitive picture of the mobility process.

Table 2 graphically portrays the several phases and segments of the project and their interrelationships.

Table 2.—*Relations among segments of project*


Phase I
Phase II
Plans for pilot study & national survey
a. variables
b. methods
Literature review
Field investigation
Consultation with other researchers
Working model
Sources
Expert information
Completeness of the list of variables
Theoretical network
Variables considered
Respondent information
Measures developed
Operationalization of variables
Phase III
Problems to be studied
Methods
Data analysis
Sample

PHASE II. TECHNICAL ASSISTANCE

Phase II consists of technical assistance to SRS in incorporating the results of Phase I into the planning, developing, and pilot-testing of the projected national survey of social welfare and rehabilitation workers, work, and organizational contexts.

PHASE III. AN INTENSIVE STUDY OF DYNAMICS OF WORKER JOB MOBILITY

Phase I of the study will have led to a conceptual framework for studying, understanding, and affecting the job mobility of social welfare and rehabilitation workers. In Phase II and the related national survey, the framework would be employed to secure data bearing on this subject, using the survey method with a national probability sample. However, the national survey method has limitations. While it is powerful because of the comprehensiveness of its sample, it can be used to investigate only certain types of variables, limited in number and concurrent in time. In effect, it deals with its subject at arm's length and needs to be complemented by a close-up study of the phenomena in order to fully comprehend them.

Such a study, in contrast to a survey, should be longitudinal rather than cross-sectional, causal or predictive rather than correlational, and should intensively investigate many variables in relatively few cases rather than relatively few variables in many cases. It is an intensive, in-depth study of this type that will be conducted in Phase III.

Basically, this Phase III study would undertake to measure the personal and organizational antecedents of different forms of worker job mobility, as well as the consequences for the agency, its staff, its clients, and the worker himself. It would be longitudinal and predictive in the sense that the personal and organizational data would be measured prior to each incidence of mobility and the consequences measured subsequently. It would be intensive in that many data would be obtained relating to the antecedents, to the immediate context of the act of changing job status, and to the consequences of that act. The intensive in-depth focus will be facilitated by having each agency continually under study by only one or two investigators, who will thereby become intimately acquainted with it. In short, the aim would be to learn as much as possible about the dynamics of worker job mobility in a relatively limited sample of agencies within the time available, using the conceptual framework developed in Phase I.

DESIGN OF THE INTENSIVE STUDY

Conceptually we see the design of our research in this phase as stemming naturally from our preliminary paradigm as we have outlined it in Table 1 and as it will be modified by the findings of our research in Phase I. Subject to these later modifications, the following procedure will be used.

Agencies to be Studied

As indicated above, the goal in Phase III will be to complement the research of the national survey by engaging in an intensive longitudinal investigation of a large number of possible antecedent and consequent variables related to job mobility in a small number of agencies. Given, however, the limitation that we will not be studying a large number of agencies on a systematic sampling basis, it is our intention that the agencies we do study should consist of a meaningful representation of the major types of agencies in the social welfare and rehabilitation field. This will be done not only to make the findings reasonably applicable to the total population but, even more, to permit a comparison of how the dynamics of mobility may be affected by various parameters of agencies. Hence, the agencies to be studied for their mobility characteristics will be chosen according to the following criteria.

1. Two qualitatively different areas in the U.S. will be selected as the base units within which agencies will be chosen in order that the results may be able to illuminate the significance of regional factors. Tentatively, it is planned to utilize the northeastern megalopolis of which New York is the center, and the southwestern U.S. (e.g., Texas) as the geographic parameters.
2. Within each geographic area, four agencies will be selected for study: two types of public organizations (State, local) and two types of private organizations (sectarian, nonsectarian).
3. Each agency pair (e.g., the two public local agencies) will be differentiated further on the basis of other relevant characteristics including the size of the agency, its urban vs. nonurban characteristics, its clientele (child vs. adult), and its specific focus (social welfare or rehabilitation). For example:

   The State agency chosen in Area A will be small, nonurban, of a social welfare nature, and having an adult clientele. The State agency from Area B will be large, urban, of a rehabilitation nature, and having a child clientele.

Choices of pairs of agencies to be studied along the other sponsorship parameters (public local, private sectarian, and private nonsectarian) will be made along similar lines, leading overall to the schema presented below as to how we will choose our agencies for study. In interpreting this schema, it should be noted

Table 3.—*Characteristics of agencies*
(A and B are geographical regions)

Two agencies representing each type of sponsorship	*Large*	*Small*	*Urban*	*Nonurban*	*Child*	*Adult*	*Rehabilitation*	*Social welfare*
Public State	B	A	B	A	B	A	B	A
Public local	A	B	A	B	A	B	A	B
Private sectarian	B	A	B	A	B	A	B	A
Private nonsectarian	A	B	A	B	A	B	A	B

that the entries in each row denote the characteristics of each agency to be chosen from that specific geographical area (A or B) for each type of agency. Developing the agency choices in this manner will enable us to secure information as to the generality of our findings and their dependence on various agency characteristics, within the limits of the intensive, dynamic investigation being proposed. Thus, for example, the dynamics of job mobility can be compared in four northeastern and four southwestern agencies, in four urban and four nonurban agencies, as well as among the four types of sponsorship (two agencies each).

LOGISTICS OF THE STUDY

Each of the selected agencies will be studied over a period of six months. The studies will be run approximately concurrently for the 8 agencies in the sample. It is planned to have each agency regularly visited by just one investigator (possibly two in the case of larger agencies) to collect the data to be described below. Different variables will be measured at different times with various of the agency staff members, as specified in the following section. The purpose and nature of the study and the role of the investigator would be explained to all agency staff members at the outset, and confidentiality of information would be assured. Cooperation, of course, would be solicited and encouraged.

DATA COLLECTION

The variables to be measured in this study are essentially those deemed of importance in the conceptual framework to be developed in Phase I. For illustrative purposes, they can be considered to be those presented in the preliminary paradigm set forth above in Table 1 and its accompanying explication. Various measurement techniques would be used to gather data as appropriate to the nature of the particular variables, including agency records (e.g., personnel records and job descriptions), psychometric and sociometric instruments (e.g., Cornell job satisfaction questionnaire, supervisors' ratings), and interviews (e.g., with personnel who change job status and with a sample of their clients). Since the specification of these techniques must await determination of the key variables and of the feasibility of their measurement in Phase I, references to them below are made only for illustrative purposes. These various instruments and procedures would be selected and/or developed during the first three months of Phase III, concurrent with securing the sample of cooperating agencies.

Antecedent Variables

These variables would be measured at the outset of the six-month field study period which would follow the planning period of three months.

Personal characteristics. The ability and motivational characteristics noted in Table 1 would be measured for all the social and rehabilitation workers on the staff of each agency. Personal history and demographic variables (such as age, sex, education) would be obtained from personnel records supplemented, as needed, by a personal history questionnaire. Data relating to goals, values, and job attitudes would be collected by means of interviews and psychometric instruments. Other personal characteristics (e.g., competence, interpersonal relations) would be gauged by ratings and behavior descriptions furnished by supervisors and peers.

Job characteristics. This information would be obtained from agency records (organization manual, job descriptions) as well as a questionnaire on which each incumbent would describe his duties and activities. Incumbents' attitudes towards features of the job would be obtained from the job attitude survey mentioned above in connection with personal characterists.

Group characteristics. Sociometric ratings will be used to characterize the social climate of the primary work group(s). Since leadership is an important element of group social climate, subordinates' perceptions of the supervisor's behavior style will be obtained by questionnaire, as well as the supervisor's own views regarding his role behavior.

Organization characteristics. These will be obtained by methods developed in the parallel project on organizational climate, probably involving a combination of existing records, interviews, and questionnaires.

External conditions. Relatively stable characteristics of the environment which may impinge on mobility, such as the labor market and the funding of the agency, would be obtained by the local investigator from existing records and/or interviews with knowledgeable local management personnel.

Job Mobility Data

The investigation of patterns of job mobility and nonmobility will take place throughout the six months of the field study. The local investigator will regularly visit the agency one day a week (or more, if needed) to collect the following data.

All individuals *employed at the beginning of the study* who undergo any sort of change of job status will be interviewed extensively as to the nature of the change, their reasons for the change, as well as perceived antecedents, external factors, and perceived consequences.

All individuals *entering the agency for the first time during this period* will be interviewed concerning the reasons for their job choice, their job expectations, their preferences and desires, their perceived opportunities and problems to be encountered. Both this group and the previous one will provide basic data concerning the nature of the mobility process which can then be related to the types of variables we have measured during the previous organizational assessment phase of the research. All these people will also be measured for most of the personal and job characteristics specified above, under antecedents; but, instead of using measures of actual job activities and satisfactions, we will measure expected job activities and satisfactions.

Since understanding the dynamics of job mobility also entails comprehension of the *conditions leading to nonmobility,* this will be studied as follows:

> Whenever a promotion is made or a new worker is brought in above an entry-level job, agency management will be interviewed to ascertain why other possibly eligible persons working in the agency were not moved into that vacancy.
>
> All personnel at the agency will be requested at the outset to contact the investigator when they have considered moving to another job status, either because it was offered them or because they sought it, and the change did not occur. The investigator will then interview them to determine the circumstances surrounding these instances of nonmobility. To help ensure collection of such data, all personnel of the agency will be contacted during the sixth month of the field study to solicit instances of this type which were not volunteered.

Consequences of Worker Job Mobility

During the sixth month of the field study (and, if necessary to complete data collection, a seventh month) interviews will be held with various persons to determine their views of the impact of the instances of mobility which occurred earlier in the field study. By deferring these interviews until the end of the study period, it will be possible to sort out possible differences in shorter-term and longer-term effects.

One client or former client of each person whose job status has changed will be interviewed to ascertain the *effects of the change on the client,* such as whether his treatment was disrupted, and the adequacy of services before and after the change.

Interviews will be engaged in with former co-workers and supervisors of the "mobile" employees, to determine effects on the work, delivery of services, and time and money costs.

Interviews will be engaged in with *the mobile employees* themselves to determine what their perceptions of the effects have been on themselves, their clients, and their agency. It will not be possible to conduct personal interviews with people whose mobility involved a change in location; so telephone interviews would be conducted with them instead.

In all cases, the design of the interviews will be such as to enable us to trace antecedents of different types of mobility consequences. In essence, our goal here will be to determine whether the consequences of mobility are influenced by the kinds of variables we have been concerned with earlier in the research and how such influence may take place.

Follow-up of New Hires

The sample of workers who initially enter the agencies during the period of the field study afford an opportunity to study two important sets of phenomena bearing on the dynamics of worker mobility.

Acculturation, or the process whereby an individual adopts the goals, norms, and behavior styles of the organization which employs him, can be studied (at least briefly) by comparing certain characteristics of the worker at the outset of his employment with measures taken at the end of the study period. The main characteristics to be studied would be values and preferences pertaining to the professional work of the employee. Theory would have us predict that those who become more acculturated (i.e., change toward the modal characteristics of those already in the organization) would be less likely to quit and more likely to progress than those who are less acculturated. While the study period is probably too short and the number of incoming workers too small to enable a definitive test of this theory, it will be possible at least to ascertain evidence of the extent to which acculturation is taking place.

Job expectancy. Previous studies and theorizing by Weitz (1956) and others indicate that when a worker's actual job experiences do not match the expectations he has about a job, he is more likely to change jobs. As mentioned above, data on such expectations will be obtained from all new employees; they will be resurveyed as to actual experiences at the end of the study period (or at the time of changing jobs, if this occurs first) in order to ascertain the extent to which such discrepancies characterize this field of employment.

SCOPE OF DATA AND PROBLEMS TO BE DEALT WITH

It is expected that this field study will produce approximately 300 individual incidents where workers changed job status (bearing in mind that a single event, such as a promotion or a quit, will typically affect the job status of more than one person). Approximately 100 workers in the sample are expected not to have changed job status. (The sample of 10 agencies will be selected in such a way as to provide reasonable assurance that, at minimum, these numbers will be obtained.)

Given the data called for above on these persons and their employing organizations, it is felt that many important questions can be answered bearing on the dynamics of worker job mobility and implications for service delivery. These answers will be revealed when the instances of the several different forms of mobility (and also nonmobility) are compared in terms of their antecedents and their consequences. Illustrative of the kinds of questions to which answers may be expected are the following:

– How do workers who move upward on the job ladder compare to those who do not, with respect to ability, training, experience, motivation, etc.?

– How do workers who leave an agency compare to those who do not in these respects?

– How do those who quit the social welfare and rehabilitation field differ from those who stay in it in these respects?

– How do those who enter a job compare with their predecessors in these regards?

– What are the organizational characteristics of agencies which are associated with the different forms of mobility and nonmobility?

– Do the personal characteristics of workers most likely to exhibit different forms of mobility and nonmobility vary among agencies with different organizational characteristics and among different types and levels of jobs?

– To what extent do workers' decisions to leave jobs depend on the balance of satisfactions and dissatisfactions experienced in the present job situation as compared to what is expected in the new job situation?

– To what extent is job dissatisfaction and mobility of workers a function of the discrepancy between job expectations and actual experiences?

– How much and in what respects does the work-group climate, including leadership, affect job mobility?

– What effects do various forms of job mobility have on job satisfaction of workers, and on their views of their future?

– What effects do various forms of job mobility and nonmobility have on the other workers in an agency, including the supervisors?

– What effects do various forms of job mobility and nonmobility have on the delivery of services, as experienced by the worker, his co-workers, his supervisors, and his clients?

The answers to these and similar questions will manifestly have implications for planning and managing agencies in such a way as to minimize undesirable forms of mobility and facilitate desirable forms. From information developed during this study and the national survey, recommendations will be made in the final report on the project regarding how these results may be attained through improvements in policies and procedures relating to recruiting, selection, advancement, training, compensation, working conditions, job design, supervision, organization, and such other factors as may be found to be relevant.

STRATEGIES AND METHODS FOR ANALYZING DATA

The overall strategy proposed for analyzing the data gathered in Phase III takes into account the fact that there will be a large number of variables. Emphasis here will consist of examining the observed empirical relationships which are found between antecedent variables, mobility, and consequent variables in the light of those predicted by the conceptual framework developed in Phase I. Hence, the data analysis can be viewed, as far as the conceptual framework is concerned, as an attempt to verify further the significance of those variables which have been previously shown to be of importance in understanding mobility. However, there will be a heuristic orientation to our analysis as well. Variables which turn out to be important predictors or correlates of worker mobility but have not been linked with this set of behaviors in the past and are not part of our framework, will be carefully attended to. Our conceptual framework will be refined as a result, and suggestions for further research will be generated.

Furthermore, as previously stated, we intend to pay particular attention to those aspects of the worker mobility process that have implications for the effective administration and management of social welfare and rehabilitation agencies.

The specific aims of the study will be reflected in the data analysis as well. These are:

1. To allow prediction of job mobility for individual workers in general and for individual workers within agencies in particular by means of a comprehensive conceptual framework.

2. To unearth the dynamics of the worker job mobility process by use of a longitudinal design.

3. To intensively study the operation of many variables as they affect worker mobility.

Data Forms and Sample

To present the data analysis strategy, it might be worthwhile to review the kinds of data we have proposed to gather, and the sample.

1. There are 8 agencies selected from two geographic areas in such fashion that five organizational features will be represented:

sponsorship
size
urban vs. nonurban
clientele (child vs. adult)
focus (social welfare or rehabilitation)

2. The individuals involved are professionals, subprofessionals, and paraprofessionals directly engaged in rendering social welfare and rehabilitation services, and supervisors or directors of such services.

3. The data from all individuals in all 8 agencies, from agency and other existing records, and from clients will include:

antecedent information obtained at *time* t_o on personal characteristics, group characteristics, organization characteristics (including service delivery), and external conditions

job mobility (and nonmobility when a move is contemplated but not undertaken) data on incumbent personnel and on those entering the agency, to be gathered from *time* t_o to *time* t *6 months*

consequences of worker job mobility from clients, co-workers and supervisors, and the workers who changed jobs

follow-up of new hires in terms of changes in values and preferences, and discrepancies between job expectations and actual job demands as they bear on mobility

Data Analytic Strategy

Following the work of those who have shown that findings vary as a function of level of analysis—i.e., individual, group, organizational (see Seashore, Indik, and Georgopoulos, 1960)—data will be analyzed at all three levels.

Individual level. All variables will be analyzed at the individual level in terms of chi-square analysis or similar procedures. The "criterion" groups will be those classes of mobility that contain fairly sizeable N's. Small groups of individuals (for example, those promoted during the six months of the study) may be compared to a closely matched sample. The determination of the extent to which variables are associated with an individual's membership in a specific mobility category will be made by means of the eta-squared statistic, where this is appropriate, or similar coefficients.

Should N's prove large enough, more sophisticated techniques such as multiple discriminant function may prove useful.

In addition, an attempt will be made to identify and predict those individuals most likely to shift jobs, using as a prediction base the conceptual framework of Phase I. In this part of the analysis, the extent to which mobility, actual and considered, corresponds to predicted expectations based on the theoretical model will be determined.

The issues of acculturation and the discrepancy between expectations and actual job demands will be explored by relating value shifts (change scores) and the degree of congruence between expectations and job demands (difference scores) to mobility behaviors or intentions of new hires.

Group level. Measures of cohesiveness, sociometric ratings, and leadership will be summarized for all work groups in the sample (means, distribution scores, and standard deviations). The analysis will address itself to the questions of the group characteristics associated with mobility. The basic method of analysis here will be chi-square with group characteristics as one dimension and mobility behaviors as another. An eventual outcome of this analysis will be the development of group profiles differentiating those groups with rates of mobility along different dimensions of analysis.

Agency level. The various measures of organizational climate and other organizational variables (e.g., size) will also be related to mobility behaviors by chi-square procedures. Profiles of each of the ten agencies may be used to identify those which should, according to our conceptual framework, be characterized by high mobility rates. A Q-type factor analysis will then be utilized in order to cluster agencies on the basis of combinations of variables, especially as they bear on worker mobility.

Agencies with relatively high rates of mobility, and those with relatively low rates, will then be compared and contrasted on the basis of profiles of variables.

Additional issues. Certain additional issues will be studied. Should agency records prove fairly complete with respect to worker mobility, the past mobility patterns of the agencies in our sample will be summarized along with their correlates.

Interaction effects among the variables (such as individual effects differing according to organization) will be treated by chi-square procedures. An example of this type of analysis might be the finding that large agencies in combination with high levels of alienation among the personnel are especially characterized by interagency turnover. Other similar analyses will be undertaken.

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PARTICIPATIVE MANAGEMENT AND VOLUNTARY TURNOVER: CONCEPTS, THEORIES, AND IMPLICATIONS FOR MANAGEMENT

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PARTICIPATIVE MANAGEMENT AND VOLUNTARY TURNOVER: CONCEPTS, THEORIES, AND IMPLICATIONS FOR MANAGEMENT

Joan C. Lee and Jon M. Shepard*

INTRODUCTION

High turnover among nonsupervisory blue- and white-collar employees has long been a matter of record. The field of social work is no exception, as evidenced by a recent study of job termination conducted among Old Age Assistance social workers in California (Tissue, 1970). Of 615 OAA workers surveyed, 39 percent said that they were either "definitely" or "probably" planning to leave the agency. Tissue compares this figure with recent experience in California merit system counties, which report a similar job turnover rate of 39.5 percent for social workers. The figures should surprise no one in the welfare field. This paper will consider the critical question of how perennially high turnover rates might be reduced for social welfare and rehabilitation workers.

The discussion which follows will focus in turn on: (1) theory and research bearing on turnover; (2) a proposed theoretical framework for the study of turnover; (3) intervening variables which condition the relationships suggested in the theoretical framework; and (4) implications of the theoretical framework for measurement, research, and managerial practice.

Rate of turnover is usually expressed as the ratio between number of separations (S) and the average labor force (F) for a given period of time according to the formula:

$$T = \frac{S}{F} \times 100$$

When a working force is being reduced and layoffs occur, this factor is eliminated in the calculation of turnover rates by substituting the number of replacements (R) for number of separations (S) in the formula. For purposes of calculating a base rate of turnover, it is probably advisable to find an expression of rate which also eliminates unavoidable (U) separations (i.e., those due to death, illness, personal problems of the employee, etc.). A more meaningful expression of turnover rate, therefore, is given by the formula:

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$$T = \frac{R-U}{F} \times 100$$

This paper is concerned primarily with those employee terminations which can be considered avoidable in the sense that they can be influenced by employing organizations.

RECENT TRENDS IN PERSONNEL PSYCHOLOGY AND ORGANIZATIONAL THEORY: BASIS FOR A CONCEPTUAL FRAMEWORK

The researcher in this area does not want for background material. He finds the behavioral science journals burgeoning with relevant data. Books and articles by sociologists, psychologists, and economists offer new theories and reformulations of old theories. These disciplines, as well as schools of business administration, continue to create research institutes to generate still more data and theory. There is no shortage of conceptual frameworks from which to view empirical findings on the world of men at work. The research itself goes back at least 50 years. But, although the research background is rich, as measured by the numbers of investigators attracted to this area and their level of productivity, the need for research is still great. Writing in the *Annual Review of Psychology* for 1970, John R. Hinrichs sums up the problem this way:

> As industrial psychology moves from the 1960's into the 70's, our review of the research literature for the last two years suggests that the field suffers from the lingering aspects of a longstanding malaise: a plethora of data and a paucity of generalizable research insights and theory.

Despite this gloomy observation, Hinrichs reports that his "in-depth excursion into the literature" also raised his hopes for the future. This is largely because he views recent recognition that traditional and overly simplistic causal models are inadequate to handle complex man-organization relationships as a significant new development. He says:

> Any attempt today to categorize research and thinking in the field has to view the world of men at work within a systems framework. Cause can just as easily be viewed as effect, effect as cause, and both interact within a dynamic ongoing system linked together in largely unclear relationships about which our models and model builders are making only very primitive explanatory efforts.

Likert and Bowers (1969), too, predict that researchers are on the verge of accelerating progress in organizational research and theory development because they are beginning to employ more sophisticated research designs that can handle complex relationships.

Assuming a catholic position, Kahn et al. (1964) argue that, "knowledge can best be advanced by research which attempts to deal simultaneously with data at different levels of abstraction—individual, group, and organization." They consider such an approach a "core requirement for understanding human organizations." Adopting this viewpoint, one could draw from all traditional approaches to the development of organizational models. That is, he could study the specific personnel issue—turnover—within the broader framework of organizational theory, adopting an approach that takes into consideration three conceptually distinct levels of analysis of behavior in organizations: (1) organizational structure and functioning; (2) group composition and interaction; and (3) individual personality and behavior. Such a conceptual scheme has been described by Pugh et al. (1963). On the basis of the literature in personnel psychology, there is reason to believe that classes of variables at each of the three levels of analysis (organizational, group, individual) are related to turnover.

Table 1 lists a number of illustrative variables at each of the three levels, as well as a fourth group related to turnover: extra-organizational variables. This latter category includes variables which are sometimes classified as organizational but have to do specifically with the organization as it exists within some larger society. The organization as a whole may be influenced, altered, or thwarted in its mission by a variety of external variables (e.g., degree of autonomy accorded the organization in respect to determining its own goals, policies, and procedures; insulation of the organization from its social context; status enjoyed by the organization within the larger society; relationships with other organizations; relationships with a client system in the cause of service organizations, etc.)

Although there is reason to believe that each of the variables listed in Table 1 is in some way related to turnover, the relationship in any case may be neither simple nor direct. A schema adapted from Likert and Bowers (1969) and presented in Figure 1 suggests a way of interrelating organizational, group, and individual variables. Likert and Bowers term some independent variables as "causal" variables if they can be directly or purposely altered by management and, in turn, influence developments within the organization. What they call "end-result" variables are dependent variables that reflect the results achieved by an organization as a result of manipulation of causal variables. Likert notes that what may be called "intervening variables" are variables that "reflect the internal state, health, and performance capabilities of the organization." He says such things as loyalties, attitudes, motivations, performance goals, and perceptions of organizational members are states of mind that are properly termed intervening variables since they (1) must be inferred from changes in independent and dependent variables and (2) are reducible to statements about independent and dependent variables. The schematic representation of variables in Figure 1 identifies a broad range of variables which may be considered intervening variables

Table 1. *Illustrative Variables Related to Turnover, Classified by Level of Analysis of Behavior in Organizations*[1]

Extra-organizational	*Organizational*	*Group*	*Individual*
client relationships (Lefton and Rosengren, 1966)	size (Gibson, 1966)	supervisory climate	need for achievement (Mukherjee, 1968)
occupational trends (Gross, 1964)	structure (Porter and Lawler, 1965)	communication (Lawler and Porter, 1968)	job involvement (Weissenberg and Gruenfeld 1968)
public image (Gross, 1964)	goals (Wesson, 1958)	cohesiveness (Halpern, 1966)	task liking (Korman, 1968)
	role specificity (Hickson, 1966)	group attitudes (Jerdee, 1966)	self-esteem (Vroom, 1964)
	role conflict (Pugh, 1966)	supervisor-subordinate expectancies (Korman, 1970)	advancement motivation (Singh and Baumgartel, 1966)
	rewards (Barnard, 1938)		cognitive style (Weissenberg and Gruenfeld, 1966)
	atmosphere (Halpern, 1966)		biographical data (age, sex, etc.) (Gross, 1964)
			role perception (Gavin, 1970)
			performance (Slocum and Chase, 1970)
			job satisfaction (Herzberg, 1957)

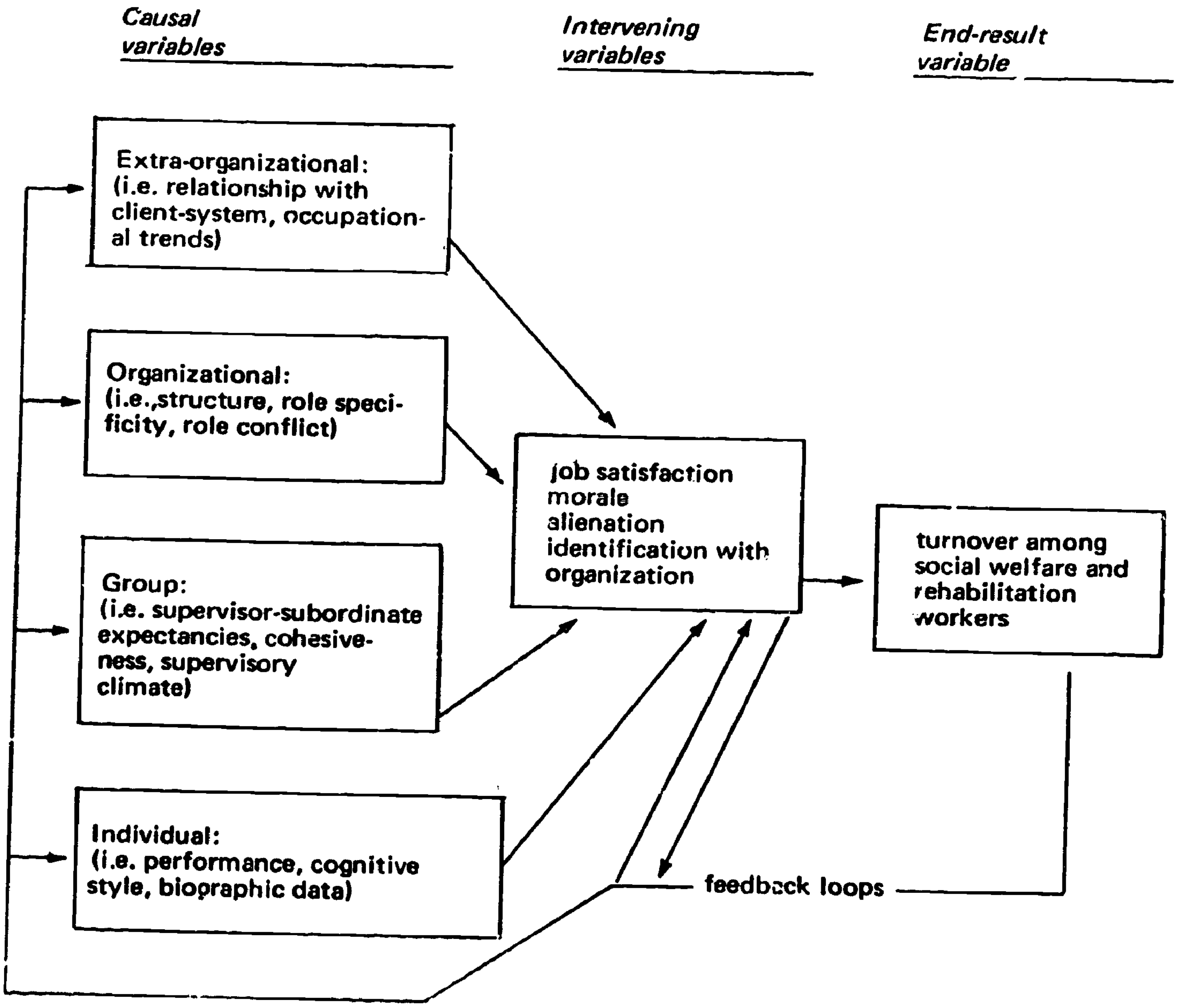
[1] Citations refer to studies listed in references which offer theoretical or empirical support for suggested relationship.

that result from changes in independent variables and mediate the effects of such changes on turnover among social welfare and rehabilitation workers.

Although the necessity of adopting a "systems framework" and an appropriately complex research design has gained almost universal acceptance among researchers studying men at work, there are still choices to be made in formulating a theoretical framework for the study of turnover. A model less general than the global schema just outlined will be developed in the next section.

Figure 1

Interrelationships of Causal, Intervening, and End-result Variables[1]


Causal variables
Intervening variables
End-result variable
Extra-organizational: (i.e. relationship with client-system, occupational trends)
Organizational: (i.e.,structure, role specificity, role conflict)
Group: (i.e. supervisor-subordinate expectancies, cohesiveness, supervisory climate)
Individual: (i.e. performance, cognitive style, biographic data)
job satisfaction
morale
alienation
identification with organization
turnover among social welfare and rehabilitation workers
feedback loops

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[1] Adapted from Likert and Bowers (1969).

A THEORETICAL FRAMEWORK FOR THE STUDY OF TURNOVER

The evidence is solidly behind the assertion that job satisfaction is negatively related to job termination. Although there seems to be a general consensus about the significance of job satisfaction in a majority of voluntary decisions by employees to terminate employment, the research on determinants of job satisfaction leads into a murky area of inconsistencies and conflicting theory. However, there is a considerable body of theory and research flowing from "participative management" and organizational theory which can be synthesized. The review which follows pursues such a synthesis, attempting in the process to unite the organizational, group, and individual levels discussed earlier.

The "human relations movement" emerged as a challenge to earlier managerial philosophies which had sought to secure high employee morale, compliance, loyalty, and performance without making any concessions to the "mature" side of the human personality. In contrast, the various theories which can be grouped under the rubric "participative management" all postulate some human personality needs, variously labeled "ego and self-fulfillment needs" (McGregor, 1960, 1967), "ego motive" (Likert, 1961, 1967), and "need for self-actualization" (Argyris, 1957, 1964). According to these theorists, mature adults strive for self-determination, self-initiative, independence, responsibility, self-integrity, and self-actualization. These personality needs, it is argued, are frequently thwarted at work because they clash with the structure of the formal organization, based as it is on functional specialization, strict hierarchy of authority, and close supervision, which is said to be an environment inimical to the needs of the mature human personality. Work in a bureaucratic organization, the argument goes, permits little individual control over job activities, provides minimal outlet for use of creative abilities, and gives rise to expectations that employees should be passive, dependent, and submissive. At the same time that people are being abused, it is contended, the organization itself suffers as an increasingly apathetic work force brings about impaired organizational functioning which is mirrored in high turnover rates, excessive absenteeism, production restriction, and malingering. Employee participation in work-related decisions is put forward as a means of simultaneously fulfilling individual needs for self-actualization, enhancing job satisfaction, and achieving organizational goals.

Likert (1961, 1967) cites an impressive number of studies showing that these human and organizational goals can be reached through a supervisory style which permits an optimal amount of employee participation in work-related decisions. Likert has been criticized on the grounds that employees may not desire, or be capable of, participation. This criticism is met by Likert's qualification that it is the "optimal" rather than "maximal" level of subordinate participation which is desired. He says:

> Supervision is, therefore, always a relative process. To be effective and to communicate as intended, a leader must always adapt his behavior to take

into account the expectations, values, and interpersonal skills of those with whom he is in interaction.

Tannenbaum (1962) summarizes some research demonstrating that man prefers to exercise power at work to being controlled from above. He also contends that the opportunity to exercise control on the job contributes to job satisfaction, ego-involvement in work, and identification with and loyalty to the organization on the part of the worker as well as to organizational effectiveness. Tannenbaum questions the fixed-quantity conception of power. He cites evidence to show that increasing control at one organizational level does not necessarily diminish control at other levels, but rather that the total amount of control is simply increased. For this reason, the degree of control can be enlarged at the nonsupervisory employee level without decreasing the extent of influence at supervisory and managerial levels.

Without discussing specific research further, it can be noted that many empirical studies buttress the positive contributions of employee participation in decision making, including enhancement of job satisfaction. (Herzberg, 1968; Maier, 1950, 1953; Mann and Baumgartel, 1952; McGregor, 1944; Ross and Zander, 1957; Wickert, 1951; and Morse and Reimer, 1956.)

An important implication of the above is that organizational structure can not be based on the autocratic model if employee participation is to be implemented. As Davis and Scott (1969) point out, the organizational model held in management's mind determines the treatment of subordinates. Assuming that the participative management theorists are right, alternatives to the autocratic management model should be considered and some are available.

The label "bureaucracy" has become a stone to be hurled against any institution which represents the "establishment."* There are more legitimate and useful grounds for criticizing this organizational form. Even Max Weber, the German sociologist responsible for the early formulation of the bureaucratic model as an ideal type, expressed (1946) fear that bureaucracy would breed excessive organizational conservatism. Weber termed those organizations as bureaucracies which are characterized by impersonal social relations; appointment and promotion on the basis of merit, authority, and obligations which adhere to the job rather than the individual; authority organized on a hierarchical basis; and separation of policy and administrative positions.

More recently, dissident voices have been heard among scholars in many disciplines. Bennis, one of the most vocal contemporary critics of bureaucracy, contends (1968) that the bureaucratic organizational form was quite well suited to the social and economic conditions under which it was adopted and developed. These social and economic conditions have changed, however, and organizational models and management practices adapted to contemporary realities are

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*A more detailed discussion will appear in Jon M. Shepard, *Organizational Issues in Industrial Society* (Englewood Cliffs, N.J.: Prentice-Hall), forthcoming.

emerging. According to Bennis, two factors will succeed in their assault on bureaucracy: the increasing demand for a balance between individual goals and organizational objectives; and the rapid environmental changes wrought by scientific and technological advances. "Organic-adaptive" structures or "temporary systems" will serve as the model for structuring organizations in the future. Skill and professional training will supplant rank as the principle of differentiation. Organizations will be staffed by a variety of specialists in temporary systems assembled according to the problem at hand. Management's job will be to coordinate and link the various and changing task forces within the organization.

Though less extreme than that of Bennis, an earlier and kindred conception was advanced by Burns and Stalker (1961). It was they who introduced the "organic" and "mechanistic" organizational models alluded to by Bennis. According to Burns and Stalker, a "mechanistic" management system, essentially based on the bureaucratic model, is suited for organizations operating in a stable internal and external environment. Under constantly changing conditions, where the emergence of new problems and the adoption of unpredictable courses of action are commonplace, the "organic" management system is required for goal attainment.

Thompson (1965) elaborates on the often-stated observation that monocratic (bureaucratic) organizations breed conservatism and parochialism and thereby stifle the generation and implementation of new ideas. Structural principles like centralized control from the top, use of extrinsic rewards (money, power, and status) to assure compliance, and emphasis on accountability on all organizational levels create a psychological and social climate inappropriate for individual and organizational creativity. Some general requirements and structural changes requisite to the creation of an innovative organization are offered. Also discussed are some necessary alterations in administrative practice that will have to be undertaken.

Litwak (1961) outlined three models of organization: Weberian (emphasis on impersonal relations and rules and regulations); "human relations" (stress on primary relations and human relations emphases); and "professional" (with the central features of both the other models). Organizations dealing with uniform events and emphasizing reliance on traditional knowledge are best served by the Weberian model, according to Litwak. He says that bureaucracies which must deal primarily with non-uniform events (i.e., research, training, social services) and with occupations emphasizing social skills as technical aspects of the job are more efficient if they differ from Weber's model in at least six characteristics: horizontal patterns of authority; minimal specialization; mixture of decisions on policy and on administration; little a priori limitation of duty and privileges to a given office; personal rather than impersonal relations; and a minimum of general rules. However, the majority of contemporary organizations face a dilemma; part of the organization requires a Weberian approach, while another segment needs the human relations approach.

Hall (1962) demonstrates that Litwak's model is recognized, at least in practice, by management. According to his data, internal structural segments of organizations differ in the degree to which they are bureaucratized. In lieu of the three discrete organizational models proposed by Litwak, Hall sets up a continuum of bureaucratization. By using attitude questions on six dimensions of bureaucracy, Hall presents measures of the degree of bureaucratization as perceived by organization members. Partial verification is found for the general proposition that organizational units engaging in nonuniform and nonroutinized tasks will be less bureaucratically structured than segments performing uniform and routinized tasks.

These organizational theorists set the stage for organization reform consistent with participative management theory. Davis and Scott (1969) describe four models of organizational behavior—autocratic, custodial, supportive, and collegial. Each type is associated with a distinctive orientation toward management as well as with certain attitudes and behavior on the part of employees. (See Table 2.) It is clear that the supportive and collegial organizational types permit employee participation in decision making. In describing the four managerial models of organizational behavior, Davis suggests that both the supportive and collegial models meet higher-order needs of employees, such as self-esteem maintenance and self-actualization, because they permit the exercise of autonomy and responsibility.

Table 2. *Four Models of Organizational Behavior*

	Autocratic	*Custodial*	*Supportive*	*Collegial*
Depends on:	Power	Economic resources	Leadership	Mutual contribution
Managerial orientation:	Authority	Material rewards	Support	Integration and teamwork
Employee orientation:	Obedience	Security	Performance	Responsibility
Employee psychological result:	Personal dependency	Organizational dependency	Participation	Self-discipline
Employee needs met:	Subsistence	Maintenance	Higher-order	Self-realization
Performance result:	Minimum	Passive cooperation	Awakened drives	Enthusiasm
Morale measure:	Compliance	Satisfaction	Motivation	Commitment to task and team

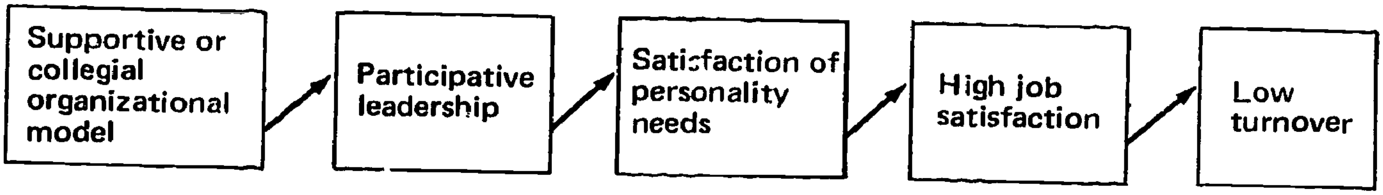
Source: Adapted from Davis and Scott, 1969, p. 31.

This latter point is important here because autonomy is generally regarded as one of the most salient needs among professionals. Parenthetically, the observation of Walther et al. (1970) in a study of social workers should be noted: "The most pronounced characteristics of the social worker are his valuing of social service, his orientation toward people, his rejection of routines, structure, and authoritarian attitudes." Bennis (1969) pursues this matter in a recent article entitled, "Post-Bureaucratic Leadership." He sees increased loyalty to the organization as a by-product of providing professionals with an organizational environment fostering self-realization and personal and professional growth. Herzberg's content factors include achievement, opportunity for growth, intrinsic work fulfillment, and recognition. These factors are apt to be associated with work situations which permit considerable autonomy, the type of situation described by Davis's supportive and collegial models. Davis reflects the opinion often expressed by researchers who have studied professional personnel, that they both desire and respond favorably to a high degree of autonomy. In this kind of environment, according to Davis, an employee's morale "will be measured by his commitment to his task and his team, because he will see these as instruments for his self-actualization."

So far, theory and evidence have been cited linking organizational philosophy and structure to leadership style, need satisfaction, and job satisfaction. The evidence is even stronger that high job satisfaction is associated with low voluntary job termination. A great deal of attention has been given to the relationship between job satisfaction and tenure. Herzberg et al. (1957) did an extensive review of the relationships of job satisfaction and morale to tenure. They found high morale related to longer tenure in 33 of 37 studies. More recently, Fournet et al. (1966) report that the same negative relationship—high morale, low turnover—has been found in a number of occupations. Vroom (1964) reviewed seven studies, all consistent with earlier work in showing a relationship between satisfaction and turnover, and advanced a theory that satisfaction is one of two variables related to tenure, the other being external forces leading to termination. A theory of work adjustment developed by Dawis et al. (1968) also says that voluntary turnover is a function of job satisfaction. (Also see Katzell, 1957; Hulin, 1966, 1968).

In concluding this segment of the paper, two studies may be noted which pertain to participation and turnover. First, Wickert (1951), in a study of turnover and morale among female employees of a telephone company, found a significant difference between those who terminated and those who stayed. Those remaining with the company felt they were provided an opportunity to make job-related decisions and expressed the feeling that they were making an important contribution to the company. Second, Ross and Zander (1957), comparing resigned female employees with matched persons still with the company, concluded that the degree of satisfaction with the fulfillment of certain personal needs (recognition, autonomy, and feeling of importance) was inversely related to turnover.

The schema below summarizes the foregoing discussion of theory and research:


Supportive or collegial organizational model
Participative leadership
Satisfaction of personality needs
High job satisfaction
Low turnover

In general, our view of recent literature related to the specific personnel problem of turnover suggests that we cannot expect to find a simple causal relationship between the job satisfaction or morale of social welfare and rehabilitation workers and any single variable. Rather, it appears likely that variables related to each of the three levels of analysis (organizational, group, and individual) interact to determine job dissatisfaction resulting in voluntary termination of employment. Moreover, there are a number of additional intervening variables which require discussion.

THE NEED FOR INTERVENING VARIABLES

As suggested above, research in this area has proceeded beyond examining simple relationships between variables two at a time. Likert and Bowers (1969) point out that social scientists had originally "expected to find a marked and consistent relationship between the management system of a leader, the attitudes and loyalties of his subordinates, and the productivity of his organization." They go on to cite a number of studies which, taken altogether, show no such simple, consistent, dependent relationship between these variables. They suggest that "the relations among these variables are so complex that taking measurements of these variables at one point in time in an organization or group of organizations and computing correlations among the variables is much too simple a research design to yield accurate knowledge and insights." More specifically, they point out that study designs have tended to ignore the influence of what they call moderating variables as well as serious inaccuracies that are inevitable in time-bound performance data.

Likert and Bowers do not stand alone in this regard. As early as 1960, Vroom reported that employee participation in decision making promotes more positive job attitudes and greater motivation for effective performance among persons with equalitarian personalities. By contrast, authoritarians and people with relatively high dependency needs are not affected by opportunities to participate in decision making. In short, he demonstrated the interaction of personality variables with participation, job attitudes, and behavior.

Vroom proposed a theory of motivation which states that aroused motivation ("a force acting on the person to behave in a certain direction") is a joint multiplicative product of motive strength ("a predisposition to obtain satisfaction from a given class of events or sequences"), value attached to the incentive offered, and the expectancy that behavior will result in obtaining the incentive. Vroom applied this model to his findings in this manner:

> It follows from the motive-incentive-expectancy model that the relationship between amount of participation (incentive value) and motivation for effective performance will depend on the strength of those motives that are satisfied by the effective performance. Consequently, this theory may be used to explain our findings that participation increases the motivation for effective performance of persons with strong motives for independence and power equality, but has no effect on those at the opposite end of these scales. (1960, p. 68).

A related conception is offered by Lawler and Porter (1968) who strongly recommend gearing reward practices in organizations to the rewards actually desired by the employees to which rewards are to be given.*

It will be recalled that Likert, too, emphasized the need to adapt supervisory practices to employee characteristics. In fact, this is the crux of Likert's principle of supportive relationships. He says:

> The leadership and other processes of the organization must be such that in all interactions and in all relationships within the organization, each member, in the light of his background, values, desires, and expectations, will view the experience as supportive and one which builds and maintains his sense of personal worth and importance. (1961, p. 103).

These studies refer to personality factors which may condition the theoretical schema proposed earlier in this paper. There are other types of variables to consider as well. For example, in a review of research relating various properties of organizational structure to job attitudes and job behavior, Porter and Lawler (1965) identify seven structural properties or variables: organizational levels; line and staff hierarchies; span of control; size of subunits; size of total organization; tall vs. flat shape of total organizational structure; and centralized vs. decentralized management. They conclude that, with the possible exception of the span of control and centralization/decentralization variables, properties of organizational structure do have significant relationships to either job attitudes or behavior or both.

Dubin et al. (1965), in a review of empirical evidence, conclude that there exists no "one best" style of supervision. The most successful supervisory style is one adapted to a particular organization and its internal and external environment. Supervisory style is conditioned by technology, culture, and employee capabilities.

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*See Atkinson (1964), Atkinson and Feather (1966), and Patchen (1970) for additional formulations of this kind.

In recent years, an increasing number of articles have stressed the need for introduction of intervening variables in research on job attitudes and behavior. Some of these are Morse and Lorsch, 1970; Fiedler, 1965; Williams, Whyte, and Green, 1966; Hunt, 1967; O'Brien, 1969; Hulin, 1966; Heller and Yuki, 1969; Form and Geschwender, 1962; Porter and Lawler, 1964, 1965; Slocum and Chase, 1970; Lawler and Hall, 1969; Armstrong, 1970; Pugh et al., 1963; and Bennis, 1959.

IMPLICATIONS FOR RESEARCH AND MANAGEMENT

The theoretical framework outlined here proposes that job termination, particularly among professionals, is significantly affected by the extent to which certain personality needs (e.g., self-actualization) are satisfied by the intrinsic nature of the job. Frustration of mature personality needs promotes low job satisfaction which, in turn, increases the probability of job termination. How can job satisfaction be enhanced? An obvious answer is to fulfill the relevant needs of the employee. This, it is theorized, can be done through a participative style of leadership which permits employees to exercise autonomy, responsibility, and self-initiative as they take part in the work-related decision-making process. Supportive or collegial organizational structures, both of which can be thought of as not being "bureaucratic" in the pejorative case of that much-maligned concept, are seen as the most hospitable to participative management.

Research is needed which tests the explanatory power of this theoretical model for social welfare and rehabilitation workers. More importantly, intervening variables must be introduced in the research design if we are to take account of the myriad additional variables which potentially condition the set of relationships just outlined. To illustrate, it will be recalled that Vroom (1960) found the effectiveness of participative supervisory practice to vary according to personality characteristics of employees, leading him to conclude that no one supervisory style is universally ideal. If studies of social welfare and rehabilitation workers corroborate this finding, the implications for recruitment and selection are obvious. Organizational and supervisory practices of the kind described in the theoretical framework of the present paper would require the recruitment of democratic personality types. Or, if certain organizations or organizational units employed predominantly authoritarian types, the implementation of participative management would yield no immediate benefits. Additional conditioning factors could be discovered if systematic research were undertaken. The importance of introducing intervening variables for both research and management is quite clear without further elaboration. Management must not overlook the critical role played by intervening variables in determining employee response to organizational structure and practices.

Likert (1967) reports research which indicates that, when all variables responsible for contradictory conclusions in previous studies are taken into consideration, particularly trends over time, the results show consistent, albeit complex, dependent relationships among leadership, motivational, and performance variables. In Likert and Bowers' words:

> The available and growing evidence justifies the view that further research very probably will demonstrate strong and consistent relationships among the causal, intervening, and end-result variables; that certain leadership styles and management systems consistently will be found more highly motivating and yielding better organizational performance than others. (1969, p. 591)

Whether the results will be so clear-cut for social welfare and rehabilitation workers is an empirical question requiring investigation. As a matter of fact, the evidence to date in the social work field has been contradictory. Walther, McCune, and Trojanowicz (1970) report that the social workers in their study had strong aversions to routines, structure, and authoritarian attitudes. On the other hand, among the state rehabilitation agency employees studied by Aiken, Smits, and Lollar (1970), two autonomy measures were less important than the interpersonal relationship between supervisors and counselors. This raises the question of which is more important to social welfare and rehabilitation workers, the manner in which supervisors treat subordinates or intrinsic job aspects such as autonomy and responsibility.

Whichever factors research shows to be most influential in reducing job termination among social welfare and rehabilitation workers, leadership style and competency remain important. After further basic research has been done with this category of worker, including experimental studies involving both supervisors and workers in a variety of organizational situations, implications of research results for recruitment, selection, training, and placement of supervisory and nonsupervisory personnel will be more clearly defined.

Hinrichs (1970) has noted a "surprising lack of comprehensive research on turnover in view of the obvious costs to industry, especially among executive and professional employees." Research in governmental organizations has been significantly less than in private industry. Likert and Bowers (1969), pointing out the importance of reduced job mobility, suggest that "financial performance records of any firm . . . will contain serious inadequacies and errors as long as human resources are ignored." They describe a method of human resources accounting that allows firms to estimate dollar investments made in building their human organization and the present discounted productive value of the work force.

They posed the following question to top management in several companies:

> Assume that tomorrow morning every position in your firm is vacant, that all of the present jobs are there, all of the present plants, offices, equipment, patents, and all financial resources, but no people. How long would it take and how much would it cost to hire personnel to fill all of the

present jobs, to train them to their present level of competence, and to build them into well-knit organization which now exists?

Estimates ranged from two to ten times annual payroll to cover the cost of rebuilding their human organization to the performance capabilities of present staff. According to Likert and Bowers, "turnover figures, for example, often take on completely different meaning when expressed in these terms."

In view of the scarcity of research in this area, particularly among social welfare and rehabilitation workers, and the costliness of job termination in Likert's "human resource" sense, it is imperative that research be conducted and the results implemented. This may require some painful changes in practices, procedures, and policies now existing in the recruitment, selection, and training of supervisory and nonsupervisory workers as well as alterations in the daily operation of organizations employing social welfare and rehabilitation workers.

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EMPLOYMENT OF SUBPROFESSIONALS: STAFF AND ORGANIZATIONAL ADAPTATION AND IMPLICATIONS FOR SERVICE DELIVERY

Scope of Work from Request for Proposal

by

Social and Rehabilitation Service

Research Proposal

by

Robert J. Teare

University of Georgia

Summary of "Scope of Work" from the Request for Proposal Issued by SRS

1. This is a request for a proposal to perform the work of conceptual development, based on existing research, theory, and agency experience, concerning processes and impact of the trend toward the employment of a new type of services worker called variously "subprofessional," "nonprofessional," "paraprofessional," and/or "new-careerist". The universe of interest is public and private nonprofit organizations engaged in delivery of social welfare and rehabilitation services or in policy and planning activities in these fields. The conceptual development must eventually lead to a methodology for data collection through which the interrelationships and adjustment processes which arise among organizations, workers, work roles, and client services may be empirically determined. A limited field investigation of the variables suggested by the conceptual development to determine their appropriateness and feasibility of measurement is included.

2. The trend toward the employment of subprofessionals, both indigenous and nonindigenous, in social welfare and rehabilitation work appears very likely to be increasing in scope. There are various sources of pressure and justifications for this trend, which has pervasive impact on the employing organizations, on the roles, self-perceptions, and career patterns of both professionals and non-professionals, and on relations between agencies and clientele and between agencies and their community and extracommunity reference groups. The patterns of these impacts are not clear, although they seem likely to be different, depending on the kinds of pressures and justifications to which agencies respond, on the vicissitudes of continuing pressures and justifications, and on the developments stimulated by organizations' and workers' responses to the inclusion of subprofessionals in the organizations.

3. The impetus for this study arises from a need for information which may be useful for anticipating the events consequent on the inclusion of subprofessionals in social welfare and rehabilitation service organizations, so that discontinuities, conflicts, and abortive compromises which affect workers and/or the adequacy of services to clients may be minimized.

PHASE I

1. The contractor shall identify and make an extensive review of literature on research, theory, and practical experience as necessary to identify and integrate major ideas and findings relevant to the study and as needed to generate the conceptual framework specified below. This review shall include, but is not limited to, literature pertaining to social services, health care,

education, industrial psychology, organizational theory, and occupational sociology. The contractor shall integrate the findings and concepts emerging from the review and shall develop a conceptual framework for studying the dynamics of employment of subprofessionals in public and private social welfare and rehabilitation agencies.

2. The review and conceptual framework must consider the following questions and issues:
    a. Are there various types of subprofessional workers? If so, how can these classes of workers be characterized conceptually? Given these classifications, what types of subprofessionals should be studied in this project and, ultimately, in the National Study?
    b. What are the forces that impinge on social welfare and rehabilitation agencies to incorporate the various types of workers arrayed in (a) above into their organizations?
    c. How can the various patterns or modes of subprofessional assimilation into social welfare and rehabilitation work settings be characterized?
    d. How can the work functions of these subprofessionals be depicted or described in a meaningful manner?
    e. At a given point in time, do these depictions of worker functions vary systematically among the various components or levels of a given organization?
    f. Do these depictions of worker functions evolve or change over time? If so, what variables seem to be associated with these changes?
    g. How are different modes of subprofessional assimilation and utilization reflected in selection and training procedures and in the amount of prescription associated with work functions?
    h. How can the consequences of the variables identified in (a) through (g) above be characterized?

3. The conceptual framework developed:
    a. Must specify, organize, and allocate variables in a meaningful way.
    b. Must capture the realities of social welfare and rehabilitation workers, work, work settings, and management.
    c. Must lead to specification of dimensions and relationships that are amenable to empirical study.
    d. Must be comprehensive in terms of accounting for a significant proportion of variance.
    e. Must be productive of knowledge concerning the relationships among subprofessionals, other staff, the work to be done [illegible] and within the organization, and the amount and nature of services.
    f. Must be useful in suggesting manipulable variables which, when intervening in existing relationships may come to effect changes in the field. These

criteria imply that the contractor will be able to identify desirable methods for measuring the required variables.

g. Must have the capability of generating knowledge which may be used for further research and have implications for policy recommendations with respect to recruitment, training and education, work assignments, and service programs.

4. The contractor shall plan and conduct a limited field investigation designed to supplement and extend the concepts derived from the review of the literature and to provide indications of the relevance of the variables he has chosen and the extent to which the patterns and relationships among his variables can be identified in various social welfare and rehabilitation settings. The contractor shall determine the practicality of (a) relevant research for use in the proposed national survey and (b) of more intensive research in the various areas, and shall identify problems in further research. The determination of practicality shall take into account the feasibility of measurement of the different variables. Feasibility is defined here in terms of the ability to construct operational measures of the variables within a reasonable time and cost framework. The field investigation should be conducted concurrently with, and be an integral part of, the conceptual development work.

EMPLOYMENT OF SUBPROFESSIONALS: STAFF AND ORGANIZATIONAL ADAPTATION AND IMPLICATIONS FOR SERVICE DELIVERY

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EMPLOYMENT OF SUBPROFESSIONALS: STAFF AND ORGANIZATIONAL ADAPTATION AND IMPLICATIONS FOR SERVICE DELIVERY

Robert J. Teare*

INTRODUCTION

This proposal describes the framework for a study designed to investigate the dynamics of employment of subprofessional workers in social welfare and rehabilitation settings.

The proposal is based on an interpretation and evaluation of the requirements described in the Request for Proposal (RFP) of the Social and Rehabilitation Service. Wherever appropriate, these interpretations are specifically highlighted and related to the RFP requirements. It attempts to describe both the point of view and the plan of approach that will guide the proposal contractor in achieving the objectives of the study.

ORGANIZATION OF THE PROPOSAL

The proposal is organized into five basic sections. The General Introduction sets the general framework of the study and reviews the major assumptions behind the work. The Problem Definition explores the general background of the problem area, reviews some of the general conceptual issues, and identifies some of the major thrusts of the subprofessional and "New Careers" movement. The Formulation of the Research Framework recasts the major research questions and discusses the implications of these questions for a conceptual framework. It identifies in a preliminary fashion the major elements and relationships that should be included in a study of this type. The last part of this section presents an idealized conceptual approach implied by the study mandate. It discusses the important characteristics of such an idealized approach and the problems associated with it. The Research Plan describes a modification of the idealized approach that is appropriate within the time limitations imposed by RFP. It describes the general methods of data collections, lays out a preliminary sampling plan, and illustrates data content and formats wherever possible.

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BASIC ASSUMPTIONS IMPLIED BY THE RFP

The RFP reflects a series of basic assumptions about the nature and magnitude of the central problem of the proposed research. These assumptions can be stated as follows:

1. Delivery systems in social welfare and rehabilitation services are being impinged upon by a variety of forces for change.
2. These forces emanate from the public at large, from the recipients of services, from the workers in the various fields, from the professions and their associated policy-shaping organizations—the National Association of Social Workers (NASW), the Family Service Association of America (FSAA), and the Council on Social Work Education (CSWE)—from various sectors of the Federal Government, and from within the decision-making apparatus of the agencies delivering services.
3. The implications of these forces are at present only imperfectly understood; and, given the fact that they are recent phenomena, they are just now reaching the state of clarity where they can be investigated by research.
4. Given the nature and origin of these forces and pressures, it seems increasingly evident that they give rise to philosophies or "movements" resulting in policies and practices that can be, at best, irrelevant to the needs of clients, workers, and organizations or, at worst, dysfunctional or at cross-purposes to the needs and goals of these groups.
5. One consequence of these forces is the movement toward the employment of subprofessional workers, both "indigenous" and "nonindigenous," in social welfare and rehabilitation work settings.
6. With our present imperfect understanding, the assimilation of these subprofessional workers into the domain of social welfare and rehabilitation has been accompanied by poorly articulated policies for selection and training, unsystematic patterns of utilization, and unanticipated impacts on the workers themselves, their colleagues and clients, and the organizations which employ them.
7. A clearer understanding of the pattern of those forces, policies, patterns of utilization, and subsequent impacts which are associated with the inclusion of subprofessionals in social welfare and rehabilitation organizations will be very helpful in establishing guidelines that are designed to minimize discontinuities, conflicts, and compromises which affect the workers and the quality of service to clients.

These appear to be the propositions and assumptions on which the scope of work proposed in the RFP is based. They are not disputed here since their logic and the limited data available point to their relevance. The research design presented here has been constructed to generate data associated with the constructs and variables implied by these propositions. They are the major building blocks of the preliminary conceptual framework.

PROBLEM DEFINITION

> Living in an age whose single constant is radical change, all men are in urgent need of whatever resources may be available as they seek to understand and manage their environment, to understand and solve the unprecedented social problems confronting them.
>
> (From the preface of Bennis, Benne, and Chin, *The Planning of Change.*)

THE CHANGING MANPOWER SCENE

Given the events of the past several decades, it has became a cliché to speak in wonderment about the magnitude of the technological changes taking place in modern society. Less visible, until the decade of the 1960's, were the profound social changes that were coming into being as a result of the evolving technology in America.

Rapidly entering the realm of the cliché are the host of statements and propositions centering about an important component of these social changes—the "manpower revolution." First coined in 1963 by the Senate Subcommittee on Employment and Manpower (Clark, 1965), this term refers to the fact that workers are rapidly being shifted away from the production line and into human services occupations. We have become, in the words of Yarmolinsky (1968), "a service society."

As is typically the case with change brought about by technology, the *ability* of society to adapt often lags behind its *need* to do so. As a result, the manpower revolution in the human services has had several marked consequences that are highly germane to this study.

1. By displacing workers faster than new jobs could be created, it has caused some segments of our society to become unemployed, impoverished, and in need of social welfare services.
2. It has created this need in the midst of a culture with rising expectations for a better standard of living.
3. By displacing workers and reorienting occupations faster than retraining could take place, it has caused a severe discontinuity between the kinds of skills *required* by the new (human services) jobs and the kind of skills *available* in the work force.

PRESSURES ON THE SERVICE SYSTEM

As a result of these factors, an increasingly heavy burden has been placed on those systems designed to provide social welfare and rehabilitation services (or human services) to people.[1] Faced with rising demands for services, these systems cannot meet the needs if they continue to utilize traditional kinds of workers in traditional kinds of ways. This problem has been described in a variety of sources (Barker and Briggs, 1966, 1968; Mencher, 1966; Monahan, 1967; Schwartz, 1966; Szaloczi, 1967; U.S. Department of Health, Education, and Welfare, 1965; U.S. Department of Labor, 1969; Wittman, 1965). The problem need not be recounted in any detail in this document.

The burden on the system has taken a variety of forms. Briefly stated, these burdens, or pressures, can be classed into five major categories.

1. *Shortage of personnel.* As the earlier narrative indicates, a mounting source of pressure has been the ever-widening gap between the requirements for trained manpower dictated by the needs of the delivery system and the availability of that manpower from traditional sources of supply. There is every evidence that schools training social welfare workers of various kinds will not be able to meet the needs of the delivery system in the future.

2. *Need for increased services.* A host of factors, some of which have been cited earlier, have combined to produce the greatest demand for social welfare services in the history of the U.S. This demand and expectation for services compounds the frustrations of both the clients who find they cannot receive services and the workers who struggle to deliver them.

3. *Entry job and career mobility problems.* Like most systems staffed with professionals, traditional patterns of division of labor and worker utilization have mitigated against quick responses to problems created by manpower shortages. Historical emphasis on academic credentials have made it difficult for workers to enter the system without full training (lack of access to entry jobs). Once in the system, workers without credentials have found themselves cut off from higher-level positions (blocked career mobility). Although the situation is improving, problems created by traditional patterns are far from being solved.

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[1] As used here, the term social and rehabilitation services (or human services) refers to "any system of services, public or private, rendered to individuals, groups, or institutions functioning in a status ranging from 'well-being' to 'disability', that is designed to enhance status, reduce risk, remove crisis, or care for disability in one or more of the major domains of living, i.e., education, employment, housing, fiscal resources, physical and mental health, leisure, family integrity, and community integrity." (Teare, 1970)

4. *Complex legislation.* Public policy, a key factor in shaping the expectations of people, has undergone rapid change. Federal and State legislation has created many programs in the past 10 years that have widely expanded the spectrum of potentially available services. At the same time, the lack of coordination, conflicting requirements, and gaps in eligibility have created severe logistics problems for many workers and programs in the system.[2]

5. *Public dissatisfaction and concern.* The social service system and the problems associated with it have enjoyed a visibility, the level of which has never before been seen in our history. Heated discussions appeared in academic and popular media about the merits and defects of such programs as the War on Poverty, Model Cities, Medicare, the Negative Income Tax, Aid to Families with Dependent Children, and the Family Assistance Plan. Such rhetoric, reaching heretofore unreached audiences, has created greater public concern about the inadequacy of our programs without, at the same time, educating people about the complexity of the problems they are designed to address.[3]

CONSEQUENCES

The consequences of these discussions, examinations of conditions, and evaluation of programs have been widespread. To be sure, many responses have been superficial. Others, however, have been serious attempts to bring about profound changes in both the structure of programs and the social philosophies propelling them. The scope of these responses can be characterized by the following types of activities:

1. Detailed examination of the scope and purview of the field of social welfare.[4]
2. Changes in the strategy and patterns of education programs in social welfare, with increasing emphasis on undergraduate education.[5]
3. Experiments with new types of staffing patterns.[6]
4. Lowering of requirements for certification and eligibility for membership in professional organizations, such as NASW.

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[2] Broz[illegible] estimates that costs of administering the system have been as high as $1 out of every $3 spent in [illegible] welfare budget. He further states that "ninety per cent of the time of social workers is spent repeatedly investigating eligibility, going over needs in minute detail, filling out forms for the many categories of assistance, special funds, and levels of governments (p. 30)."

[3] The writings of Harrington (1963, 1969) are among the notable exceptions to this pattern.

[4] For more recent examples of this, see the writings of Bisno (1969), Kellner and Tadros (1967), and Teare (1970).

[5] In this regard, see the recent publication of guidelines by the Council on Social Work Education (1967).

[6] The recent publication by Barker and Briggs (1969) describes one such plan.

5. Research in new methods for describing and reformulating work activities.[7]

6. Introduction of new types of workers into the field.

Although any action taken usually has implications for more than one of these types of response, the last-named forms the center of attention of this proposal. Our conception of the forces contributing to the movement to introduce new workers into the field of social and rehabilitation services has, in large measure, shaped the research framework to be proposed. Therefore, it would be well to spend some time describing this point of view. In doing this, we will draw upon several of the concepts and hypotheses formulated by Katan in an excellent unpublished manuscript.[8]

EMERGENCE OF NEW WORKERS: THE NONPROFESSIONALS

Although the chronology is difficult to pinpoint exactly, in recent years increasing legitimation is being given to the strategy of introducing new workers, with less than "full professional" training and with incomplete credentials into the social welfare and rehabilitation field.[9] Originally viewed as a stop-gap expedient, this phenomenon has now been relatively well accepted as a permanent fact of life and, in several significant ways, has been advocated as contributing positively to the quality and relevance of social welfare services (Reiff and Riessman, 1964).

Before going further, some distinctions need to be made. Various names have been given to workers with less than full professional training. These labels—"subprofessional", "nonprofessional", "preprofessional", "paraprofessional", "ancillary workers", and "associated workers"—are used rather loosely and are all assumed to be synonymous. We will designate two major categories of workers, the indigenous worker and the preprofessional worker, for purposes of the present discussion.[10] The focus of our distinction is on the logic underlying the *selection* and *training* mechanisms rather than on the *utilization* patterns.

By indigenous worker, we mean the individual who is selected primarily on the basis of demographic criteria. He may be indigenous in either of two ways:

1. *Cultural affiliation with the client group.* This is a sociological orientation. It assumes that, by virtue of the cultural overlap, this type of worker will possess insights into values, beliefs, mores, and customs;

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[7] The present preparations for a National Study of Social Welfare and Rehabilitation Workers, Work and Organizational Contexts are evidence of the major effort being put into this response at the Federal level.

[8] We express our appreciation to Katan for his permission to incorporate this material into the basic framework of this proposal.

[9] This basic practice of using less than fully trained professionals, as volunteers and as technicians, has a much longer history in other fields of the human services (i.e., medicine, nursing, dentistry, education). For further comments about basic methods for introducing new workers, see Fine (1967) and Teare (1968).

[10] Depending on his orientation in the prefix game, the reader is left to his own devices in making the substitutions most comfortable for him.

will have better access to any informal power structures; will be able to communicate in the language or vernacular of the clients; and will therefore be more "acceptable" to clients and more effective in the delivery of service.

2. *Shared problem experiences with the client group.* This criterion has more of a therapeutic orientation. Here the assumption is that a worker, by virtue of having experienced and possibly overcome pathology, crisis, or disadvantage (e.g., drug addiction, alcoholism, mental illness, prison) will have greater insights into the dynamics of the adjustments required and a better understanding of the clients' needs. As with the first criterion, it is assumed that he will have greater acceptance and heightened effectiveness.

In either event, the indigenous worker is hired mainly on the basis of his life experiences rather than on the basis of formal training. In the great majority of cases, he has little or no formal training in the field. At the time he is hired, he may even have little or no formal education of any kind. His credentials are his biographical data. Finally, because of his background, it is most often assumed (and frequently encouraged) that he will be oriented more toward the client group than toward the system or "establishment" with which he now has marginal overlap.[11]

By the "preprofessional", we mean that worker who is hired primarily because of skills that have been developed through a formal program of training or education. By definition, his level of training has not resulted in academic credentials that elevate him to the traditional level of full professional status.[12] He may or may not be "indigenous" to the client group in the sense that we have defined it above. The critical difference for our purposes is that, more often than not, he has created personal "equity" in a discipline, a career ladder, or a credential system by virtue of his investment in time and/or money. This equity may affect his orientation toward the system or the establishment. It may have a bearing on how he resolves a conflict between the needs of a client and the needs of the organization. It will help to define his "constituency."

In summary, we feel that this distinction between the indigenous and the preprofessional worker, couched in terms of a basic frame of reference at the time of hiring, is a critical one to make at this time. This distinction should have an important bearing on the nature of the expectations of the organization, the client, and the worker himself.

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[11] The concept of "overlapping" and "marginal situations" was first introduced by Barker et al. (1953) to account for role conflicts introduced by partial disability. Such a framework will prove useful in the conceptualizations of our proposed study.

[12] For example, the M.S.W. (in social work), the R.N. (in nursing), the M.D. (in medicine), the Ph.D. (in psychology).

In Phase I of our proposed research, emphasis will be placed on the gathering of information about the indigenous worker. Should time permit, we would propose that preliminary data also be gathered about the preprofessional worker. Should this not be possible during Phase I, we would strongly recommend that data about the work functions and occupational adjustments of the preprofessional worker be collected during Phase III of this project.

Given this focus on the indigenous worker, what are the characteristics of the forces behind this emergent manpower trend that have implications for the present study? An extremely important central characteristic is the simple fact that the impetus for the indigenous worker movement has largely been shaped by forces outside of the realm of the establishment of social welfare and rehabilitation and, in many respects, implies values that are in opposition to some of its dominant orientations.

MOTIVES FOR UTILIZING INDIGENOUS WORKERS

Katan (1970) has cogently characterized seven major forces or themes that have given impetus to the indigenous worker movement in the social welfare services.

1. *The manpower shortage.* Many of the details of this theme have been discussed above. Suffice it to say at this point that certain segments of the population have been systematically displaced by technological evolution and have become chronically unemployed or underemployed. At some point it would seem appropriate that social planners would come to view this population as a potential manpower pool for the social and rehabilitation services field. This point of view has had its clearest expression and been given its greatest impetus by the writings of Riessman.
2. *The desire to eliminate poverty.* A logical extension of the manpower shortage discussed above is to hire the poor and the "hard-core unemployed" to deliver services and, by this process, to eliminate or greatly ameliorate the problem of poverty. This notion of a "human services W.P.A." contains many hidden problems but remains a relatively dominant motive behind the movement.[13]
3. *The desire to change the image of the poor.* Coser (1965) has maintained that the poor, unlike many other social groupings, are defined primarily in terms of a one-sided dependence on other groups rather than on the basis of a mutual interdependence. This results in an image or status defined largely in negative terms. The employment of the poor is seen as one way of bringing about a change in this image.

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[13] A detailed analysis of the problems associated with job development in the social services sector may be found in Ferman (1969).

First of all, the poor person will be on both sides of the table, as a grantor of services and as a recipient. Second, he will perform the service job on the basis of ability and competence. Thus the employment of the indigenous poor is seen as a way of enabling a person who is himself in need to make a social contribution in the giving of aid. This is viewed as having positive benefits for his image—in his own eyes and those of society.

4. *The desire to provide therapeutic experiences.* Related to the desire to change the image of the poor is the "helper therapy" principle described by Riessman (1965). Stated simply, the proposition has two basic thrusts: (a) since many indigenous workers recruited for human services jobs are likely to be school dropouts, unemployed, delinquent, or otherwise "stigmatized" persons, placing them in a helping role will be highly therapeutic for them; and (b) as these therapeutic benefits are realized, these people should become more effective workers and thus become a positive growth force in the manpower pool of a depressed community.

5. *The need to reallocate work within an organization.* Given the present gap between rising demands and the shortage of manpower, many organizations see the use of indigenous workers as an opportunity for "factoring out" tasks of a repetitive nature and creating positions requiring less skill or technical competence. This then frees the professional to concentrate on those activities requiring the full capacities of his training.[14]

6. *The desire to make services more meaningful.* With increasing frequency, one hears the criticism that social and rehabilitation systems are unable to provide meaningful and needed services to people (Cloward and Epstein, 1967). Many of the reasons for this have been described earlier in this section. Two of them figure centrally in this motive. They are: (a) the cultural "distance" between the professional worker and the client, and (b) the rigid bureaucratic characteristics of many human services organizations. The use of indigenous workers is seen as a way of bridging the gaps between client and organization, pointing out structural deficiencies, and helping to identify possible remedies.

7. *The desire to increase citizen participation.* The movement to involve citizens in the operation of human services, particularly in poverty programs, has been both advocated and attacked under the rubric of "maximum feasible participation." Two different themes seem to be

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[14] The inherent dangers of this strategy, with respect to job and career development, have been described by Ferman (1969), Fine (1967), and Teare (1970).

running through this basic idea. First, it is held that citizens have a basic right to take part in the planning and operation of the programs that influence the basic fabric of their life (Wofford, 1969). Second, citizen participation may be used as an organizational device for controlling clients more effectively and for "cooling off" potential tensions. This latter motive closely resembles the principle of "co-option" described by Selznick (1966).

As the above narrative has demonstrated, the forces and motives underlying the movement to incorporate indigenous workers into the field of human services are a diffusion of many themes. In our experience, they are rarely separated in the minds of planners as they develop programs for recruiting, selecting, and utilizing indigenous workers in organizational programs. Such separation is critical, for we feel that erroneous or incomplete understanding of these disparate motives—in the minds of the organizational planners, the workers, and the clients—will have profound impact on: (1) the willingness of organizations to employ them; (2) how their roles will be communicated and perceived by all parties involved; (3) the ways in which their tasks and activities will be constructed; and (4) the potential effectiveness of these workers in providing services to clients.

BENEFICIARIES OF UTILIZATION

In line with this assertion, we would speculate that an organization's willingness or readiness to introduce indigenous workers will depend initially on the organization's perception of who will benefit most from the involvement. This notion has led Katan (1970) to attach the concept of the "prime beneficiary" to each of the seven motives described earlier. This linkage of motives and beneficiaries is depicted in Table 1.

As the table depicts, a theoretical analysis of the implications of these motives reveals that their impacts (in terms of benefits) can be quite different. Only two of these seem to be principally concerned with bringing about changes in the workers themselves. In others (those that are organization-centered and client-centered), the worker is mainly an instrument for bringing about the achievement of different goals. To be sure, this depiction is somewhat simplistic. However, the paradigm serves to illustrate that a lack of understanding of the implications of these various motives or a misperception of the priorities behind manpower utilization strategies (particularly between workers and supervisors or administrators and their boards) can potentially cause a great deal of grief. This is especially true of the "participation" motive. If a management encourages participation on the grounds that workers and clients have a right to be involved

Table 1.–*Motives and Beneficiaries.*[1]

Motives	*Primary-Beneficiary*			
	Indigenous workers	*Organization*	*Clients*	*Society at large*
Reduce manpower shortage		√√		
Eliminate poverty				√√
Change image of client	√√		√√	
Provide therapeutic experience	√√			
Reallocate work		√√		
Increase meaningfulness of services			√√	
Increase participation	√√	√√	√√	

[1] Adapted from Katan (1970)

(client-centered, worker-centered) but, in fact, uses this as a co-opting tactic (organization-centered), dissonance is likely to be increased rather than decreased.[15]

EXPECTED ROLES

These motives will also have implications for the ways in which the indigenous worker will be used. Some of the dimensions of job activity that are likely to be affected will be discussed in more detail in later sections. At this time, we would merely like to highlight the basic notion of "role expectancy". Katan (1970) has identified three preliminary concepts of "role expectancy" based primarily on a continuum of change that the worker is expected to introduce into the organizational climate. Again, although not based on empirical data, these concepts are helpful for describing a general "set" with regard to work behavior that will serve as useful grouping variables during the early development of the conceptual framework.

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[15] This issue, centering around tenant participation, has become a central problem in the assimilation of programs designed to achieve "social goals" in public housing.

1. *Conformity.* A worker functioning within this set will see himself (or be viewed by management) as having little status within the organizational hierarchy. His duties will be narrowly defined, even though they may be quite varied. He will be given little discretion in carrying them out and will be expected to maintain strict standards.
2. *Mediation.* This set implies that the worker will be expected to serve as a bridge between the client and the organization. Although he is allowed more latitude in terms of interpretation and discretion, his principal objectives will be to serve as a policy instrument and information channel for both the clients and the organization.
3. *Innovation.* Given this set, a worker will be expected to introduce new elements into the organization. Interpreted at its fullest, the indigenous worker will be expected to be an instrument of change by virtue of the fact that he is equipped with information about the real needs of clients and is given discretion and autonomy to take action.

The relationships between the motives of the organization and the sets that workers might possess (or be cast in) are depicted in Table 2.

Again, it should be emphasized that these linkages are speculative. It is interesting to note, however, that the majority of the motives imply conformity more than any other mode. This is clearest for reducing manpower shortage and reallocating work. It is difficult to speculate how a desire to eliminate poverty would be translated into manpower strategies for a given organization since, unlike any of the others, it clearly relates to a goal which is external to an organization. The clearest expectation for organizational change seems to be implied by increasing the meaningfulness of services. The greatest possibility for role dissonance is likely to be for the participation theme. This would be expected because of the element of co-optation contained in it.

SUMMARY COMMENTS

In this section, we have attempted to describe and interpret some fundamental dimensions of the movement to use indigenous and preprofessional workers. We have dealt at length with some of the concepts that can be derived from these dimensions because they will be useful in developing a conceptual framework for the research we are proposing. Subsequent sections will describe the orientation and methodology to be used in the study.

Table 2.–*Motives and Role Expectancy*[1]

Motives	*Role Expectancy*		
	Conformity	*Mediation*	*Innovation*
Reduce manpower shortage	√√		
Reallocate work	√√		
Eliminate poverty	?	?	?
Change image of client		√√	
Provide therapeutic experience	√√		
Increase meaningfulness of services		√√	√√
Increase participation	√√	√√	√√

[1] Adapted from Katan (1970).

FORMULATION OF THE RESEARCH FRAMEWORK

BASIC RESEARCH QUESTIONS

The major focus that the proposed research plan should have is clearly outlined in the RFP. In their simplest form, the questions can be stated in the following way:

1. What are the various kinds of subprofessional workers employed in social and rehabilitation settings?
2. For what reasons and by what processes were these workers employed?
3. How are these workers being used in these settings?
4. What are the various ways in which the consequences of their employment can be described?

In answering these questions, we shall provide both a framework for organizing the data that will be required and a methodology for gathering such data. This section will deal primarily with the dimensions of such a preliminary framework. In our view, such a framework will consist of two basic elements: those which identify and organize content; and those which characterize and depict relationships.

CONTENT ELEMENTS

An analysis of the questions posed by the RFP suggests that there are at least five major content classes that are implied by the sponsor's mandate. These involve classifications of: (1) types of subprofessional workers; (2) forces operating upon agencies to use such workers; (3) patterns of assimilation of workers into organizations; (4) patterns of utilization of workers; and (5) impacts or consequences of employment on the workers, the clients, and the organizations. Each of these will now be discussed in some detail. It should be pointed out that many characteristics of these content elements were included in our presentation of the Problem Definition. To avoid repetition, we will refer back to that discussion whenever possible.

1. *Types of subprofessional workers.* Preliminary classifications of types of subprofessional workers can be talked about in terms of who the people are (demography or biographical data), how or why they were hired (modes of assimilation), and what the workers do (patterns of utilization). These latter two classifications come under content classes 3 and 4 above and will be described in more detail under those headings.

In terms of subelements, demographic data would include such variables as: (a) age, (b) sex, (c) race and cultural background, (d) level and type of education, (e) place of residence, (f) length of residence, (g) marital status, (h) number of dependents, (i) voluntary association memberships, (j) occupational history, and (k) career as a client. On the basis of several of these subelements (c, d, j, and k) we distinguished earlier between "indigenous" workers and "preprofessionals."

2. *Forces operating on agencies and organizations.* We described many of these forces in Problem Definition above. Subelements of this content class would include: (a) pressures to deal with manpower shortages, (b) the need to increase services (stemming from clients, workers), (c) requirements imposed by mandate, charter, or legislation (e.g., 1967 Social Security Amendments, OEO legislation, Model Cities program and staffing requirements, HUD "Social Goals" participation), (d) community "climate", and (e) external pressure from local groups (i.e., board of directors, PTA, church councils, newspapers).

To evaluate these subelements or real sources of pressure, other subelements, focusing on the organization's vulnerability and capacity to respond, would need to be taken into account. These include such things as: (a) organization size, (b) source, magnitude, and type of funding base, (c) scope of services, (d) centralization of decision making, (e) formalization of policies and procedures, (f) staff composition, and (g) reliance on formal position descriptions and precise divisions of labor.[16]

3. *Patterns of assimilation.* These subelements have to do with the various ways in which subprofessionals are introduced to and absorbed into the organization. The subelements include: (a) degree of "preconditioning" of the organizational system (i.e., modification of career ladders, sensitization of supervision, planning for mobility), (b) recruitment techniques, (c) specificity of selection criteria, (d) "location" of entry jobs in the organization, (e) methods of orientation for new workers, and (f) comprehensiveness of in-service training procedures.

4. *Patterns of utilization.* These subelements describe the basic components and dimensions of worker activities. They include concepts such as: (a) role expectancy (one possible framework was described in Problem Definition), (b) tasks and task clusters, (c) purposes and objectives of the work, (d) distribution of time allocations to various tasks, (e) types and levels of discretion associated with tasks and (f) the "span" of activities (specialization—generalization). Related subelements of utilization also include: (g) sources of information and instruction, (h) specificity of standards (both "process" and "impact"), and (i) type and closeness of supervision.

5. *Consequences.* This class of content is primarily concerned with describing and depicting the effects of impacts of the above-described data elements. It may be assumed that these impacts or consequences can be described from the perspective of the organization, the workers, and the clients. Much of the language of these consequences can be couched in terms of the first four content elements since, in most cases, one would be talking about changes in these elements over time.

Organizational consequences would include such subelements as changes in: (a) structure, (b) program scope, (c) types of service, (d) recruiting and selection procedures and criteria, (e) training content and specificity, (f) supervisory practices, (h) sources of pressure, (i) expectancies for workers, (j) descriptions of work activities, and (k) emphasis on formalized procedures.

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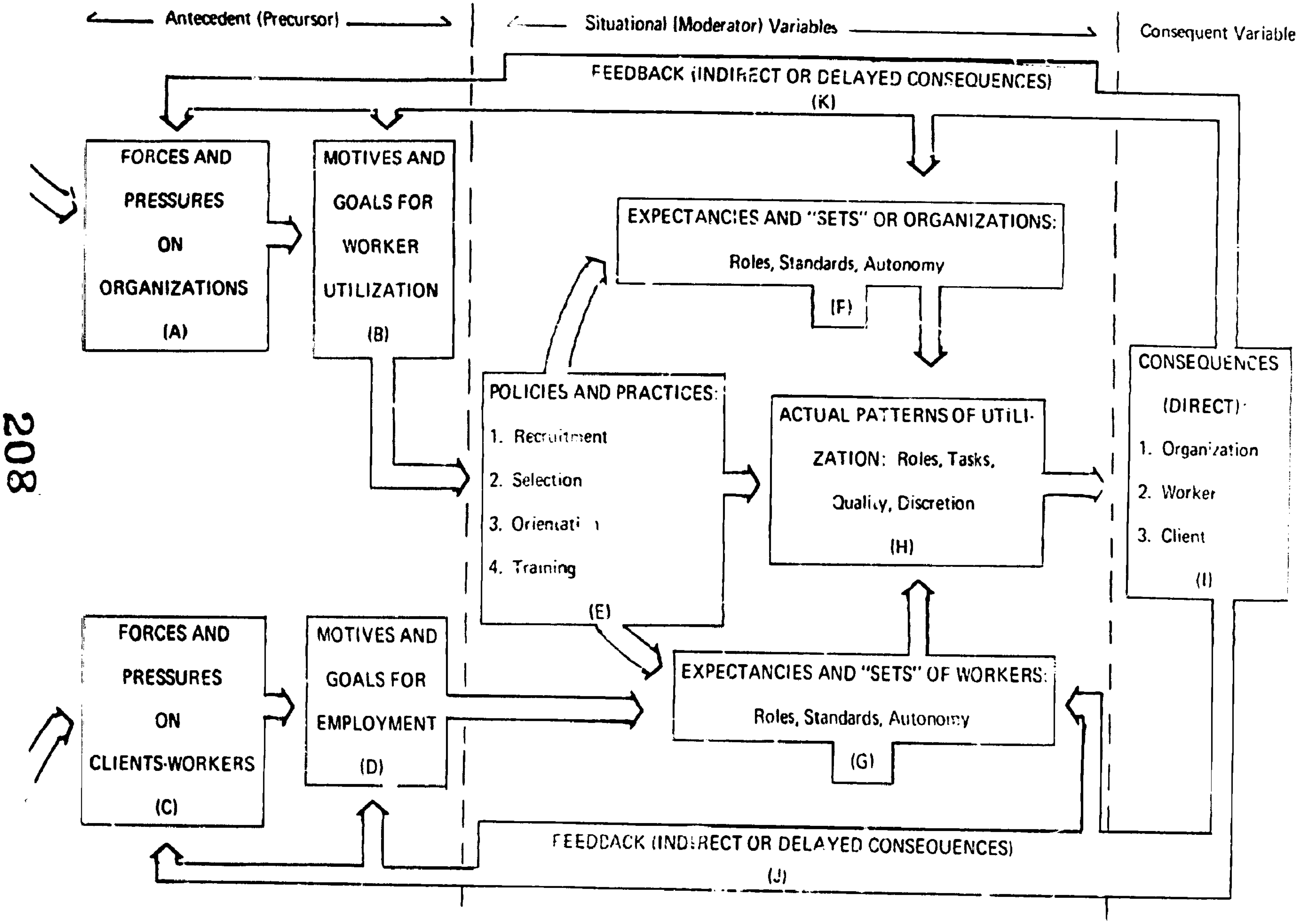
[16] Several of these subelements, particularly d, e, f, and g, have been focused on by organizational theorists to describe the change potential of organizations on a continuum from "mechanistic" to "organic." See particularly Bennis et. al., 1961, and Burns and Stalker, 1962.

Figure 1. Paradigm (Idealized) of Major Relational Aspects of Conceptual Framework


Antecedent (Precursor)
Situational (Moderator) Variables
Consequent Variable
FEEDBACK (INDIRECT OR DELAYED CONSEQUENCES)
(K)
FORCES AND PRESSURES ON ORGANIZATIONS
(A)
MOTIVES AND GOALS FOR WORKER UTILIZATION
(B)
EXPECTANCIES AND "SETS" OR ORGANIZATIONS:
Roles, Standards, Autonomy
(F)
POLICIES AND PRACTICES:
1. Recruitment
2. Selection
3. Orientation
4. Training
(E)
ACTUAL PATTERNS OF UTILIZATION: Roles, Tasks, Quality, Discretion
(H)
CONSEQUENCES (DIRECT):
1. Organization
2. Worker
3. Client
(I)
FORCES AND PRESSURES ON CLIENTS-WORKERS
(C)
MOTIVES AND GOALS FOR EMPLOYMENT
(D)
EXPECTANCIES AND "SETS" OF WORKERS:
Roles, Standards, Autonomy
(G)
FEEDBACK (INDIRECT OR DELAYED CONSEQUENCES)
(J)

For the workers, the subelements of consequences would be changes in: (a) expectations, (b) career aspirations, (c) levels of satisfaction, (d) patterns in work activity, self-induced and externally-induced, and (e) life style off the job.

Impacts on clients would involve subelements such as: (a) length of time spent with workers, (b) lags in service, (c) reduction in "fractionization" of contact with organization, (d) perceived increase in continuity and relevance of services, (e) additional services received, and (f) impact on the status of functioning in various life domains.[17]

DATA RELATIONSHIPS

As we indicated earlier, the second principal type of data element depicts *relationships*. The addition of this dimension to a conceptual framework introduces the notions of *order, sequence,* and *association*. Under ideal experimental conditions, such a dimension permits one to make inferences about *cause-effect* relationships.

A tentative formulation of the basic sequential (or relational) aspects of the conceptual framework is depicted, in an idealized paradigm, in Figure 1 on the facing page. The paradigm uses the data elements and themes described in the earlier portions of the proposal.

Several important characteristics of this paradigm should be discussed at [illegible] since they are critical to the design of our proposed study and are likely [illegible] for the National Study.

First of all, the paradigm depicts a sequence or flow of events occurring through time. The arrows are designed to depict both a temporal sequence and an associative (causal) sequence. The variables have been arbitrarily sequenced into a chain of "antecedent," "situational," and "consequent" variables.[18]

Secondly, the paradigm is dynamic rather than static, in that it depicts a sequence of variables in flux. Each of the variables contained in it affects those that follow. The "consequent" variables, besides being a product of the prior chain of events, then "feed back" to these prior states, modifying them in the process and thus creating a new chain of events.

Finally, the paradigm depicts this dynamic process as an open system. The forces for change and modification of manpower strategies come both from elements internal to the organizational framework as well as those external to it.

IMPLICATIONS FOR STUDY DESIGN

We have referred to this paradigm as an "idealized" approach. This usage should be explained. Given the nature of the questions posed in the RFP and the framework implied by the paradigm, an "ideal" study would be one which carefully examined the form, magnitude, and strength of the relationships between a set of phenomena representing the consequences of employment of subprofessionals and those variables which represent the major antecedent and situational elements. Such a study would require that two basic conditions be met: (1) the construction of relevant, sensitive, psychometrically sound measures of the content elements; and (2) the isolation and classification of all relevant variables which constitute potential sources of independent variance. Given the temporal nature of the chain of events (and the potential delays in feedback) such a study would more properly be longitudinal rather than cross sectional. Furthermore, a study of this type would contain many controls to provide for the isolation and combination of various levels of the data elements.

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[17] This last subelement refers to the concepts implied by the definition of "human services" given in footnote 1 above.

[18] This represents an extension of the basic model for differential personnel selection and utilization research suggested by Dunnette (1963) and an unpublished program evaluation model by Teare (1967).

Such a study would be appropriate if there existed no constraints on time, money, or scheduling. Such is not the case. In any event, we do not believe that the expenditures required for such an effort would be reasonable from a cost-effectiveness standpoint. We have presented a comprehensive tentative conceptual framework and have made this idealized approach explicit in order to: (1) present a frame of reference to the sponsor for joint sponsor-contractor planning purposes; and (2) provide a point of departure for making alterations in the ideal so as to take into account the constraints existing in the actual problem situation.

RESEARCH PLAN

GENERAL CHARACTERISTICS

In order to give an overview of the research approach, we [illegible] summarize the major characteristics of the empirical portion (field experi[illegible] the proposed research plan. In so doing, we will also describe the progression from Phase I (Limited Field Investigation) to Phase III (Intensive Field Investigation).

1. In both Phases (I and III), we will use a cross-sectional approach. Using current and retrospective data from various sources, we will attempt to develop case histories. By this process, we feel we will be able to reconstruct, in a preliminary fashion, the longitudinal (relational) components of the conceptual framework. In Phase I, these case histories will be organized around sites. In Phase III, as data become more detailed, we will attempt to organize case histories around various types of workers.

2. In Phase I, the principal method of data collection from respondents in the field will be through a series of increasingly structured individual and group interviews. Categorizing data, through content analysis, should lead (in Phase III) to the capability for collecting expanded data, in less time, through highly structured interview techniques. Ultimately, in the final portion of Phase III, data collection should be

amenable to self-report formats. (Present planning for the national survey would seem to point to this as being desirable).

3. Site visitation, in Phase I, will be limited. Present plans call for six sites. They will be chosen so as to maximize variance in content elements (see Preliminary Sampling Plan, below). Sites used in Phase I will be those that offer social welfare services primarily. In Phase III, a wider range of sites, numbering about 15, will be selected. These will include hospitals, clinics, and rehabilitation centers in addition to primary social service agencies.
4. The data emphasis in Phase I will be on identifying major content elements and relationships (see Data Categories, below). We will concentrate on the antecedent and situational variables since, in many instances, the consequent variables will be described in terms of changes in these. Phase III will place more emphasis on consequent variables (particularly client-centered) and on the various feedback loops.
5. In terms of data sources, emphasis will be placed in the early portion of Phase I on the general literature. This literature will also include Federal legislation, agency policy documents, and position papers of various professional associations.[19] In the limited field investigation (Phase I), respondents will primarily be agency planners, administrators, and subprofessionals (with emphasis on the "indigenous" worker). In Phase III, the range of respondents will be broadened to include other types of subprofessionals (including preprofessional workers), supervisors, and clients.
6. Data analysis techniques, in Phase I, [illegible] qualitative rather than quantitative in nature. Emphasis will be placed on content analysis (to construct nominal and ordinal scale categories), and case history narratives. Use of computer facilities will be restricted to technical assistance for formating categories. Phase III will emphasize the compatibility of formats with data processing and will involve computer storage. Data input, storage, and retrieval will be tested on a dry-run basis to determine cost and check out coding procedures. (This will be done in anticipation of requirements for the national survey.)

Having described the major characteristics of our research approach, we will discuss several of these aspects in more detail.

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[19] For example, FSAA, NASW ad hoc committees, CSWE, and National Association of Community College Mental Health Technicians.

DATA CATEGORIES

Most of the elements of the data we propose to collect have already been referred to and described previously in the section on Problem Definition above. A complete listing of these data elements linked to the proposed sources and methods for collection is contained in Table 3.[20] In terms of emphasis, the progression and expansion of data elements, from Phase I to Phase III, have been summarized in the opening pages of this section.

WORK FUNCTIONS

Unlike the rest of the variables, few comments have been made about the nature of the descriptive data dealing with work activity and the specialized techniques that will be required to collect them. Since they constitute a highly critical situational variable, a description of our proposed approach is in order.

A detailed task analysis of worker activity is a formidable effort. Furthermore, it lies within the purview of the National Study. Consequently we are not proposing that anything approaching this magnitude be done in the present study. We are proposing instead that a limited analysis of worker functions be carried out centering around (a) clusters of tasks, linked with measures of (b) areas of discretion, (c) levels of discretion, (d) allocations of time and effort, and (e) specificity and clarity of standards. These data, coupled with diagnostic statements about sources of satisfaction and discontent, will permit the research staff to generate descriptions of work and make inferences about worker functions and objectives, roles and role expectancies, worker autonomy, skill requirements, and scope of work.

The methodology for collecting these data was developed by the principal investigator and first used in a job analysis of psychiatric aides in several hospitals in North Carolina.[21] Briefly described, the technique initially involves gathering preliminary task descriptions, from groups of 6 to 10 workers at a time, in an iterative manner. It starts with the identification of major work areas (as perceived by the workers) based on their perceptions of the different kinds of things they do. They are then asked to fill in details of tasks (in sequence) under each major area. A subsequent group of respondents is then asked to verify these statements, regroup major areas, and add more details. Rather early in the process, redundancy is reached in that no regrouping occurs and no new task statements are added. At this point, the basic "package" or array of task clusters is assumed to be identified. Formats are then made up which contain summary descriptions of each of the major task areas. New groups of respondents are then presented with these formats to which they can respond individually. Control

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[20] A source heading for the "General Literature" is not included in this Table since it can be assumed that, whenever possible, it will be used.

[21] The methodology developed and findings derived from this analysis are currently being incorporated in a study entitled "A Functional Job Analysis of a Critical Mental Health System Component: The Psychiatric Aide."

Table 3.—*Proposed Data Elements and Sources*

Data Elements	*Probable Sources (primary)*					
	General Policy Statements	*Agency Records*	*Respondents*			
			Administrators	*Workers*	*Supervisors*	*Clients*
1 Worker Data:						
(a) Basic demography		√		√		
(b) Occupational history		√		√		
(c) Career as client		√		√		
2 General Agency Data:						
(a) Forces and pressures	√		√	√		
(b) Capacity to respond	√		√	√		√
3 Worker Assimilation:						
(a) Preconditioning		√	√	√		
(b) Recruitment techniques	√	√	√	√		
(c) Selection procedures	√	√	√	√		
(d) Training mechanisms		√	√	√		
4 Worker Activities:						
(a) Task descriptions		√		√	√	
(b) Discretion		√		√	√	
(c) Allocation of efforts				√	√	
(d) Standards	√	√	√	√	√	√
(e) Job status		√	√	√	√	
5 Consequences:						
(a) Satisfaction				√		
(b) Job change				√	√	√
(c) Organizational change	√	√	√		√	√
(d) Client impacts				√	√	√

Note: Where more than one check appears in a row, this means that back-up sources can be used for accuracy checks. Whenever possible, this will be done.

data (i.e., biographical information) are contained on the heading of each sheet. These data are used to describe sources of variability.

Each worker is then asked, with respect to each task cluster, to:

1. Scale it in terms of difficulty and challenge (a five-point ordinal scale is used);

2. Scale it in terms of contribution to client goals (a five-point ordinal scale is used);
3. Scale it in terms of degree of satisfaction (a five-point ordinal scale is used);
4. Indicate percentage of time spent (sum of all tasks must total 100, including any zero entries).

Following this, the workers are asked to describe discretionary aspects of the task areas. Again, this information is obtained, in each task area, for each worker. Six basic categories (or areas) of discretion are used:

1. Task Initiation—Can he choose whether or not to do it?
2. Method—Can he select the techniques or procedures?
3. Standards—Can he decide when appropriate quality is reached?
4. Level of Effort—Can he vary length of cycle or level of effort?
5. Scheduling—Can he choose when or how often to do the task?
6. Resource allocation—Is he free to use other people or materials?

For each of the tasks, the worker scales each category of discretion (on a five-point ordinal scale) in terms of the degree to which he is allowed to use his own judgment in making these kinds of decisions.

Subsequent to these scaling tasks, workers are then asked to describe. for each area, patterns of supervision, the vigor with which standards are enforced, the sources of his instructions, and specific origins of satisfaction and [illegible].

The procedure thus consists of:

1. Development of an array of task clusters, described in general terms, that covers the job situation (a relatively small sample of workers is usually required);
2. Identification of specific variations in each task cluster (on an individual worker basis) in discretion and time allocation.

Once the array of tasks is developed, the additional data (on variations) can be gathered by group interviewing in less than four hours.

NECESSITY FOR MODIFICATION

As should be evident from the above description, there are some weaknesses in the technique. Modifications and refinements will be required for the present study.

First of all, the technique is best suited for generating descriptions of relatively structured tasks (in terms of sequence and range of task options). To the extent that workers in the present study have a high proportion of elective (or unstructured) tasks, this deficiency in the technique will have to be corrected. Secondly, the methodology lends itself better to generating a description of a broad manpower component (consisting of a "composite" of all possible task clusters) rather than a description of the specific configuration of tasks carried out by a single worker. Finally, constructing the original array of tasks (from which an individual worker would sample to describe his particular job) can be time-consuming and can "use up" a small sample of workers in a hurry. Given the time constraints in the present study, we are likely to be working, particularly in Phase I, with relatively small samples. We will therefore need to modify the procedures so that we can generate the original array of tasks more efficiently. This might be done, on an a priori basis, from material in the published and unpublished literature. Tentative task clusters, that seem to have potential for generalization, have been developed by Teare (1970) and Gordon (1970). We know that other arrays exist.[22] One of the purposes of the literature review will be to identify other possible configurations, developed from respondents similar to those in this study, that might be incorporated into the data collection procedures.

PRELIMINARY SAMPLING PLAN

For Phase I (Limited Field Investigation), [illegible] tentatively selected six sites for investigation. These sites were chosen to represent probable maximum variation in: (a) agency type (scope of services, degree of bureaucratization, ability to change, size, source of funds); (b) source of pressures (public funding, private board control, community climate); (c) status of indigenous worker programs (large, small, well-developed, emergent); and (d) section of country (Southeast, Northeast, Midwest). These sites are:

1. Economic Opportunity-Atlanta, Atlanta, Ga.
2. Fulton County Department of Public Welfare, urbanized county near Atlanta, Ga.
3. Model Cities Program - Neighborhood Service Centers, Gainesville, Ga.
4. Baltimore Health and Welfare Council (private agency consortium), Baltimore, Md.

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[22] For example, much activity has been generated, among others, by the Human Resources Commission (Chicago), the Institute on New Careers (Warrenton, Va.), the New Careers Development Program (Washington), the New Careers Development Center (New York University), the Southern Regional Education Board (SREB) in Atlanta, and the Western Interstate Commission for Higher Education (WICHE) in Boulder, Colo.

5. Detroit Department of Public Welfare or Wayne County Department of Public Welfare, Detroit, Mich.
6. Private agencies in Ann Arbor, Mich.

This array of sites is preliminary; subsequent investigation (on-site) and discussions with SRS monitors may result in changes. We have presented these because they: (1) are accessible and amenable to use; (2) represent good geographic spread for purposes of estimating transportation costs; (3) contain divergent sampling characteristics; and (4) illustrate the rationale behind our sampling plan.

During Phase I, we would expect to collect data from approximately 200 respondents.[23] These would consist primarily of indigenous workers but interview data would also be collected from agency administrators and, when possible, from supervisors of the worker-respondents.

During Phase III (Extensive Field Investigation), we would expect to expand the number of sites to about 15. Their composition has been described previously under General Characteristics of the Research Plan. At this ti[illegible] estimate that they will include sites in Chicago, New York City, North [illegible] West Virginia, and Virginia. Our projected plans call for data collection from 400-500 respondents during Phase III. This sample would contain additional subgroups of nonindigenous (preprofessional) workers, supervisors, and clients. Data collection will emphasize the "relational" aspects described in the research paradigm, Figure 1.

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[23] This number is fairly firm but does depend on our ability to solve the methodological problems associated with collecting data from groups of workers.

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